

Dietrich College Advancement

IN PARTNERSHIP WITH

Adam Causgrove

PREPARED BY

Andy Park, David Domalik, Sohan Kalva

Final Report

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Community Partner Background

About the Organization

The Office of University Advancement in Carnegie Mellon University's Dietrich College of Humanities and Social Sciences (hereafter referred to as DCA) serves over 1500 students by connecting external partners to opportunities within the Dietrich College. Interested parties reach out to DCA and have a conversation with one of its four employees, who then guide the partner to the appropriate program within the college and provide additional advice on other relevant opportunities. These could include research, Capstone projects, or recruitment. For our project, Adam Causgrove was representing DCA and served as our primary point of contact.

DCA describes its mission as follows:

The Office of University Advancement in Carnegie Mellon University's Dietrich College of Humanities and Social Sciences is dedicated to increasing the College's resources, overtime, by identifying and establishing meaningful relationships with its closest constituents to help them develop personal, professional, and philanthropic life-long relationships with the Dietrich College.

As an office within Carnegie Mellon University, DCA is situated within a well-developed organizational structure. This comes with its advantages; there is a strong support system in place for employees and budget is not a major concern since funding comes in regularly from the university. But this also presented our team some challenges; we are very restricted in that our solution must fit into an existing tech stack. This required us to communicate with a large number of stakeholders within the university.

Most colleges within Carnegie Mellon have their own Advancement offices to manage corporate relations, but Dietrich's was only founded three years ago. DCA was looking for new ways to advertise Dietrich programs in need of external partners but currently lacks a website to display such information, putting them at a disadvantage compared to their colleagues at the university. The web presence of the Dietrich College is managed by Dietrich's own departments of IT & Operations and Communications.

Programs

The Dietrich College has 11 different academic programs, many offering multiple majors or interdisciplinary study outside the college. Each individual department and

program has unique opportunities for working with external partners. One successful [example](#) is when students completing their Master of Statistical Practice degrees worked with SESCO Enterprises, LLC, on a project aimed to improve energy market predictions using regression models, which include skills they built in their coursework. This helped both the students and the external partners as the students were able to work with real data and the external partner was better able to predict future energy prices.

In addition to Capstone projects like the one above, businesses may also be interested in funding research, where the expertise of Carnegie Mellon students and professors can be put towards the development of new information that is both useful to the business and a good learning experience for students. Partners could also choose to recruit Dietrich students for certain internship or full-time positions, but need guidance on what majors will best suit their needs.

DCA assists these partners with navigating the aforementioned opportunities and can recommend the best department for a certain project. They will then continue to build a relationship with that partner after their first project. Technology previously played a minimal role in this process, as most of the work in DCA occurred through verbal conversation. Computers may be used to schedule these conversations and track data about repeat partners.

Staff

The DCA team is made up of four individuals led by Liz Cooper, who is responsible for fundraising and alumni engagement. Mary Loyd is a major gift officer (front-line fundraiser for Dietrich) and works closely with Liz Cooper. David Gardner is a support staffer who assists the team wherever need be, but specializes in managing their Salesforce CRM. For the duration of the project we worked with Adam Causgrove, who deals with external partnerships and focuses on corporations such as Amazon, Google, and Salesforce. The team deals heavily with Salesforce CRM, using it as a one stop shop for all their data management needs. Besides Salesforce, they use Slack and email on a daily basis.

Since both Adam and Liz deal with external partners, our solution will benefit them the most by saving them from explaining arbitrary information that could be accessed in a written form, while also opening another method for possible partners to come in contact with Adam and Liz. Our involvement with the Salesforce CRM also impacted the work of David Gardner.

Beyond the DCA team, staff in Dietrich's IT & Operations and Communications departments were relevant to our project. Within IT & Operations we have worked with Vincent Sha, Assistant Dean of IT and Operations, and Tim Ruff, Systems and Support Consultant. Their team is responsible for upkeep of the site itself. Abby Simmons leads the Communications department as the Assistant Dean of Communications, and her team publishes copy text to be placed on all outgoing communication from the college, including the website.

Technology Infrastructure

As a department within Carnegie Mellon, much of DCA's technology infrastructure has been around longer than the office itself, and DCA has little influence over it. Each employee of DCA is provided a laptop by the Dietrich College, but it is not uncommon for them to use iPads or mobile devices to complete work. Since DCA does little technical work, the software they use regularly falls within the realm of communications, which will be discussed in a later section.

The one exception is Salesforce CRM managed by David Gardner. Through the Salesforce CRM they are able to follow up on every partner, new growth opportunity, and gain analytical insights. Since Salesforce is a cloud service used across the university, we didn't need to install servers into their office or build an interface from scratch, making it very easy to work with.

Our solution is being maintained by the Dietrich IT & Operations office. About 80% of Dietrich's online presence uses the [university CMS](#), so our team pursued a solution that takes advantage of their experience with the CMS.

Technology Management and Planning

The Dietrich IT & Operations department led by Vincent Sha is responsible for all technology management and planning that occurs within the Dietrich College. This team is mostly separate from Carnegie Mellon Computing Services, but they choose to follow many of the standards set by the university to maintain consistency across colleges. Employees within the Dietrich College know to come to the IT & Operations team to log problems with technology, receive help on a fix, or to propose the introduction of new technologies. The team is also responsible for updating technologies currently in use, installing new software, backing up data, and ensuring all data is private and secure. For our project, our team reached out to Vincent for initial information about the backend of the current Dietrich site.

Communication

As a small team of four, there aren't many issues communicating in DCA. As CMU employees, all four get access to the university's existing communication systems including Andrew email addresses (accessible through Gmail or Outlook) and can share files between each other on Google Drive. The staff is also familiar with Slack and uses Zoom for video conferencing. Secondary stakeholders including the Dietrich IT & Operations and Communications teams similarly use these CMU systems. Having established communication tools and support from the college has resulted in a robust and effective internal communication system.

It's worth noting that David Gardner, a member of DCA, serves as the "glue that holds the team together" and splits his time between the external partnerships Adam is responsible for with the alumni engagement efforts that the rest of the team is focused on. His job communicating directives and progress between employees helps everyone stay on the same page.

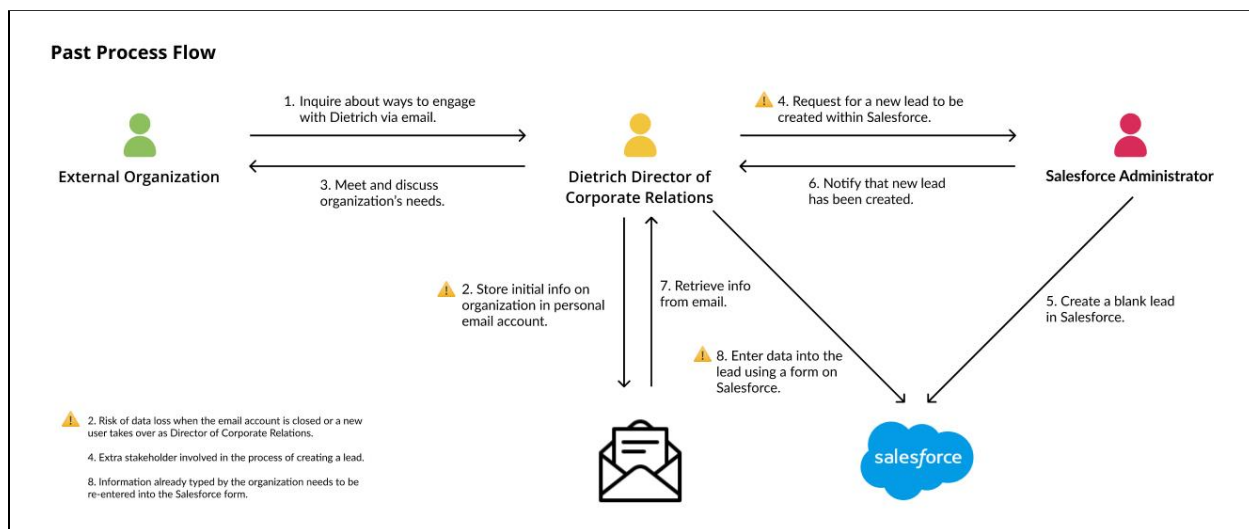
Reaching out to and communicating with external partners is a different story with more struggles. New leads primarily came from two sources, both fairly inefficient and unstructured. The first was referrals from knowledgeable staff members across the university. Businesses will often reach out to their closest contact at the university asking about opportunities, but those contacts rarely know of the Dietrich Office of Advancement and usually refer the wrong people. The university's Business Engagement Center is too broad and isn't solely invested in the advancement of Dietrich College. The Career and Professional Development Center is only focused on recruitment opportunities and can't provide advice on research or capstone project proposals. Faculty within individual Dietrich departments advocate only for their specific program and are unfamiliar with the opportunities outside their department. Dietrich's Office of Advancement is now establishing itself as the primary point of contact over those offices to best advocate for all Dietrich students.

A second way DCA reaches out is through travel and meet-ups in major cities. This method is used infrequently (and isn't possible during a pandemic) since it is high effort and time consuming. This form of communication also works best at attracting individual donors and alumni, but isn't as effective for targeting the corporate partnerships that Adam aims to attract.

Information Management

The information most critical to DCA is on partners, whether that be alumni, donors, or businesses. All of that information is collected and stored in the Salesforce CRM used across the university. The easiest way for Adam to describe what's tracked in Salesforce is "everything," all communication sent or received, attendance at events, stewardship, family members, past donations, where the money was allocated to, etc. Surprisingly, it did not appear that Salesforce previously included an attribute that showed how the partner in question found out about the opportunities to work with Dietrich, nor did it track who entered new partners in the database.

The way information previously flowed through DCA starts when a possible partner reaches out to Adam looking for ways to get involved with Dietrich (either via email, phone, or a referral from someone at the university). Adam will then have an initial conversation with the partner before adding any information into Salesforce. Only after Adam meets with the partner does he submit a request to David and the Salesforce team to create a new entry in the CRM. This process is mostly manual, as it requires Adam to write all the information going in the database once a new partner has been manually created by David.



At first, Adam didn't see any issues with this process since it allows him to keep the data going into Salesforce consistent. DCA was operating at a level where this manual process is sustainable.

Business Systems

As a university office made up entirely of staff employed by Carnegie Mellon, most business systems are set at a level out of the control of DCA. Fortunately, our client has

expressed no issues with these systems because they would be out of our scope to address.

For specifics, accounting and payroll are handled by the CMUWorks Service Center. Employees use Workday to log hours, view payroll and benefits, mark paid time off, and other employee services. These systems have been in place for many years and are common across the university. They were not relevant to our project.

Community Partner Project Description

Project Opportunity and Vision

The problems the Office of Advancement at Dietrich College faced could have been separated into two categories. The first centered around communication channels between the college and potential external partners. DCA lacked a centralized online resource where partners could learn more about opportunities to engage with Dietrich College. Most partners connected through the Center for Business Engagement, which represents the university as a whole and is one step removed from each individual college. Dietrich College needed to have a platform where they could advocate for themselves and have full control over the information that is sent to partners, forming a more direct line of communication. The majority of other CMU colleges (see [SCS](#), [Heinz](#), [CIT](#)) and several peer institutions (see [Illinois](#), [Washington](#)) have a website for this purpose, but Dietrich had fallen behind with its relatively new Office of Advancement.

The second issue concerned information collection. With the current number of partners, all information can be handled by the staff currently in DCA. But our team understood that the manual data entry method previously in place opened a hole in system security, as some information existed outside the secure Salesforce database until Adam had an initial conversation with the client. Manual data entry also presented challenges if DCA wanted to scale up their outreach efforts without hiring new employees to manage the increase in information. Lastly, a lot of trust and responsibility was put on Adam's shoulders to not lose any information he receives while he waits for a new entry to be created in Salesforce. Adam was open to optimizing this step of the process, mentioning that he didn't propose it as an area in need of a fix because he wasn't knowledgeable of the potential vulnerabilities posed by the process.

As the system stood, Adam and his peers spent a significant amount of time communicating with and collecting basic information from potential partners. By

developing a solution that can better display and gather information from these partners, we were able to offload much of the work that keeps DCA from performing more complex tasks, such as searching for new leads or growing existing relationships with a more personal touch. This work is necessary to establish the meaningful and lifelong relationships specified in DCA's mission, but was previously being underserved due to work with new partners.

Project Outcomes

A new tool that was implemented was the five pages of site content that were created for the new "Engaging with Dietrich College" website that is built on Carnegie Mellon's main website directory (see appendix). Previously, this website did not exist and external partnerships were marketed through word of mouth and email contacts. There were numerous design process artifacts that were produced before and during the development of the web application. Stakeholder maps (see appendix) were created to better understand and clarify who the audience is for our project and who is involved. This details the goals and objectives of each stakeholder. Furthermore, a map of site structure (see appendix) was made for the purpose of reaching admin approval to begin developing the web application. This site structure went through multiple iterations and discussions despite the simplicity of the artifact in order to lay the foundation for navigation. Another design artifact related to user research was the personas (see appendix) where this helps to understand the type of users that may potentially come to visit the website to get in contact with Dietrich College's Office of Advancement. A journey map (see appendix) was also created to better understand the navigation process of a potential user and where the pain points are in the previously existing status quo. Given that the five pages of site content were created and published for live viewing, this demonstrates the community partner's capacity for trust in the team and the project.

Another new tool that was implemented was a contact form that is connected to the Salesforce database that Carnegie Mellon faculty use. This database is used to keep track of the information surrounding sales leads. Before this feature was implemented, the Dietrich College Advancement team had to manually create the sales leads through email processes (see appendix). Now, our team streamlined that process by having new external partners fill out their contact information on the website, which is then sent to Adam Causgrove through Salesforce where he can confirm the information is correct. We also formalized a data dictionary for documentation (see appendix) originally for the purpose of helping the Salesforce team understand what inputs were needed, but it will stay on with the project with the intent of helping future teams with exactly why the inputs are necessary (see

appendix). As we made progress on the client's project, there were a few necessary items to include for quality issuance as well. One was a content back-up plan (see appendix) to ensure that content, largely the success stories and testimonials, would be added to the site in a timely manner in case some stakeholders were not able to provide the content itself. This content back-up plan with extra success stories proved useful when it came to the faculty research page, as we encountered a roadblock in communication with one of the professors regarding curating research highlights. A search engine optimization plan (see appendix) was also created and implemented when it came to language choice within the site in order to achieve part of the mission of reaching out to as many potential external partners as possible by raising the priority of the site in a search engine result. Later on in the last stretch of the life cycle of the project, user research and testing guides were created (see appendix) to better understand the mindset of potential users of the site, which would then influence the design and development of the project. The team was able to test two users using these guides: Alec Lam, a recruiter from Apple software engineering, and Lisa Smith from Piedmont Community Services. Both have ties to this course and department as Alec was a former 67-272 Head Teaching Assistant and Lisa was a community partner for both 67-240 and 67-373. Another user tested was from HDR, Inc., an engineering design firm, who also happens to have a tie with Carnegie Mellon as an alum. In this user testing, we were able to understand different types of users including recruiters, nonprofits looking for capstone project assistance, and alumni. These findings were aggregated into an artifact (see appendix). Given that the Salesforce team from the community partner's staff confirmed the functionality of the contact form feature, this demonstrates the capacity for actualized service.

Our solution attempts to address the sustainability of the project in our hand-off with detailed documentation regarding what content on the site needs to be regularly updated. Fortunately, the client we worked with has multiple teams that can address the maintenance and sustainability of the project. The Carnegie Mellon Salesforce team can maintain all sales leads as well as the functionality. Furthermore, the Computing Services team can maintain the overall CMS functionality. Our solution also accommodates the social context for our community partner as it does not increase the load of work, but rather decreases the load of work as they can focus their efforts on their relationships with external partners. In the development of the solution, a social context outcome was that the team maintained a strong client-consultant relationship.

One very important summative outcome is the growth of public presence as the site with optimized search engine processing allows for marketing for external partners. Previously, the Dietrich Corporate Relations Director did not have a front-facing website for marketing

and information purposes. Now, we not only have that problem solved, we have achieved more through the Salesforce feature. Another significant summative outcome is the time saved from the solution we have implemented as our community partner does not have to bring in sales leads manually through Salesforce. As stated before and shown in the appendix, the previously existing Salesforce was labor and time intensive.

One outcome we were not able to achieve was potentially reaching the ideal number of users to test. We tested three users, but ideally common accepted best practice is to test five or more users. Furthermore, it would have been beneficial if this testing and research occurred much earlier in the software development life cycle, as we would have been able to implement more of this feedback earlier on. Our team chose to focus more on implementing the feedback from the client, but there may have been potential to fit in both during development. Further notes will be provided in the recommendations section.

Final Project Deliverables

Link to deliverables:

https://drive.google.com/drive/folders/1rA_0U5VoUTilfcWuM5V1lhKQiMJ0azqM?usp=sharing

Data Dictionary: This document contains the breakdown of information that would be collected from the Salesforce Web To Lead form. This acted as a guideline for the Salesforce team to follow when creating the form we used in the main site.

Journey Map: This document outlines the process that potential partners go through to get involved with the Dietrich College Advancement. This helped us get a better idea as to what weaknesses there exist in the prior process.

Marketing Plan: This document contains the process suggested to the Dietrich College Advancement Team to consider when attempting to advertise the main website.

New Salesforce Process: After creating the website, the process the external organizations interacted with the team and the salesforce CRM changed to look like this structure.

Past Salesforce Process: This Process flow diagram outlines the old way external organizations, corporate relations, and the Salesforce CRM interacted with each other. This

was used to show how complicated the original process was before the introduction of the DCA website.

Personas: This documents different personas that could possibly want to interact with Dietrich/DCA. This helped us analyze the different reasons people would want to come to the website for.

SEO Worksheet: The words and phrases in this document describe what's most relevant to the content in the site. All of the words/phrases ended up being used in the titles, metadata, and paragraph text across the site.

MVP and User Stories: This document better defines our MVP and specifies a specific site layout and structure to follow that ensures our client's goals are met by fulfilling user stories.

Stakeholder Map: This map shows the different stakeholders that would interact with each other in relation to the Dietrich College Advancement. This was used to get a better understanding of the stakeholders we are dealing with.

User Interview Guide: This guide was used to interview stakeholders to give us a proper understanding of what individuals who interact with the Dietrich College Advancement team know/what to know in relation to DCA. We suggest that the DCA team use this guide if they want to interview additional potential partners.

User Testing Guide: This user testing guide was used post the creation of our website to figure out if the website was properly surviving its purpose. We suggest that the DCA team use this guide if they would like to conduct additional user tests.

Content Update Plan: This document delegates out what Content should be updated on what constraints. This acts as a base for any content changes.

Website Final Screenshots: File contains the latest screenshots of the site created for the Dietrich College Advancement team.

User Research and Testing Folder: This folder contains the interviews we conducted to get a better understanding of if the developed solution is viable. In addition, it also contains suggestions that could be implemented for future iterations of the website.

Usability Findings: This slide deck is used to keep track of common usability issues and rank their severity so that researchers and developers can communicate on what improvements to the site should be done first.

Statement of Project Completion: This document officially hands over the project to our client and releases our responsibility to work on and maintain the project.

Recommendations

Between the Communications and IT & Operations departments, Dietrich College has the staff necessary to sustain our solution for the Office of Advancement. We recommend that DCA keeps the content up-to-date on the website to maintain relevance over time and continue to attract interested organizations. Our “Content Update Plan” lists all the elements that should be updated regularly and specifies how often we recommend DCA revisits them. Failing to do so will likely result in a decrease of leads as visitors to the website will assume DCA is inactive.

If Dietrich College chooses to spend additional time improving our solution or employs another consulting team to pick up our work, there are a few places for them to start. Conversations with our client revealed three ways to build upon the current website; these include developing a more elegant confirmation message when a form is completed, diversifying the success stories across the three main pages, and finishing the Testimonials page. Making these improvements would lead to a more enjoyable experience for the user as they can better understand what’s possible in partnership with Dietrich and feel more confident using the website. Refer to our meeting notes for more details on these discussions.

Our team recommends further user research and testing to take this project to the next level. Our user research mostly came from the ‘large corporation, recruitment’ perspective despite there being over half a dozen varying types of external partners who DCA is trying to attract. Best practices in industry also encourage at least five user tests to be conducted, meanwhile our team only reached three. While our testing provided enough information to show that our site was informative and successful at exposing users to the methods of engagement within Dietrich, it was not comprehensive enough to prove that the usability issues found are shared among users, not to mention the numerous issues that have yet to be found.

All of the reasons above explain why further research and testing is necessary. The User Interview Guide and User Testing Guide included in our project deliverables should be used to conduct this research to ensure that the questioning stays consistent and the data can be analyzed in a useful manner. Take detailed notes during these interactions; examples can be found within our deliverables. Use your notes from the user research interviews to update the stakeholder map, personas, and journey map accordingly. Notes from user testing should be compared across participants and common issues recorded in the usability findings slide deck until they are resolved. This deck already exists within our deliverables and contains some issues found during our testing. Lastly, use your findings to change the website content and do another round of testing.

Once the website has been refined, our team recommends exploring ways to address pain points on other phases of the journey map. Especially important is the first phase - searching for help - because the website isn't useful if it can't be easily found. Some work on SEO has been completed and documented within the project, but we anticipate a need for a larger publicity plan that includes social media use and informing all points of outreach in the university.

Lastly, we recommend that any team pursuing our project develops a strategy to monitor improvements by measuring engagement in Dietrich over time. Without establishing a baseline before our solution was implemented, it was difficult to prove the extent of the impact we had on DCA. Watching the rate of engagement over time will help you judge success as you bring the above recommendations into reality.

About the Team

Andy Park served as project manager and was responsible for setting agendas and leading meetings. He is a third-year student double-majoring in Information Systems and Statistics. He will be interning at Barclays this summer and is looking toward a career in trading.

David Domalik served as quality manager and lead researcher, creating interview guides and models of DCA's target audience for this project. He is a third-year student double-majoring in Information Systems and Human-Computer Interaction. He will be interning at Honeywell this summer and is looking toward a career in user experience design.

Sohan Kalva served as client relationship manager and frequently communicated with the numerous stakeholders involved throughout development. He is a fourth-year student majoring in Information Systems and Business Administration. He will be starting a full-time position as a Software Engineer at Capital One this summer.

Appendix

User Stories

As a...	I want to...	So that...
DCA employee	Request that new information be added to the website at any moment	I can ensure that the information on the page stays relevant to the evolving opportunities at Dietrich College.
DCA employee	Receive partnership proposals from businesses	I can connect them to opportunities within the Dietrich College.
Website Administrator	Edit the website using technologies I already use daily	I'm not required to learn and remember new software.
External business	To learn about the opportunities to become involved in the Dietrich College	I can benefit from the knowledge and skills offered by students within the college.
External business	Read about the success other businesses have had in partnering with Dietrich	I can envision myself in that situation and understand the capabilities of a Dietrich partnership.
External business	Submit a proposal for a Capstone project and recruit students for internships	I can grow interest in my business and eventually hire Dietrich students.

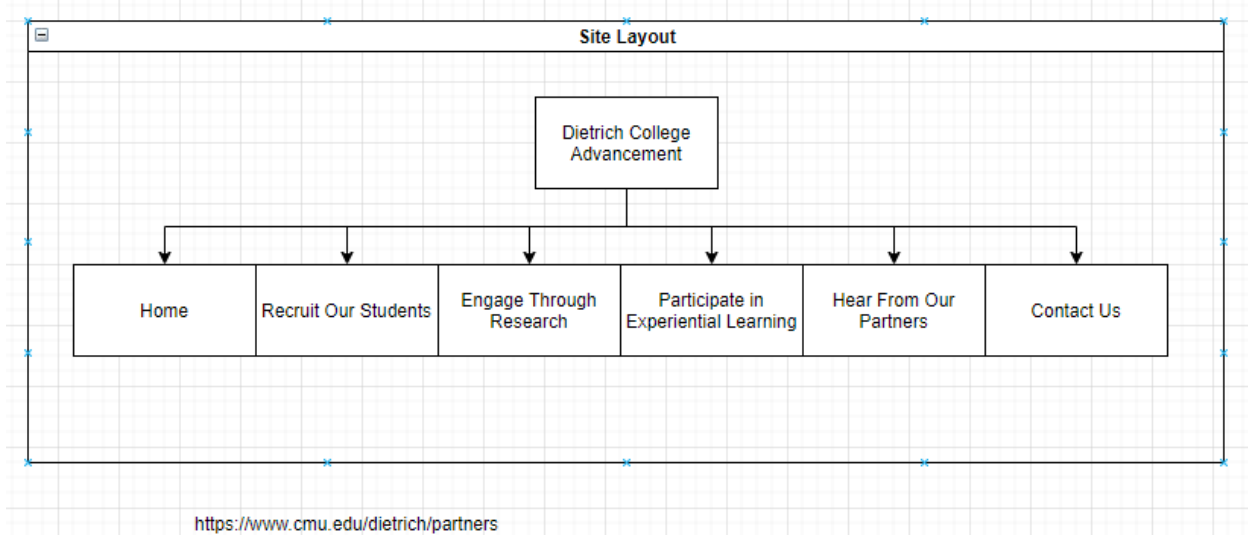
Program within Dietrich College	Attract business partners to my department	I can provide valuable real-world experience to students through research and Capstone projects.
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After our meeting with Adam Causgrove, we were able to get a better picture of exactly who the external business partners were. These external businesses range from small nonprofits (e.g. Piedmont Recovery), local corporations (e.g. Thermo Fisher), to large corporations with heavy involvement in Carnegie Mellon recruiting and research (e.g. Amazon, Capital One). We were also able to clarify who was *not* to be expected users. Students are not expected to use this website at all. If they are looking to get recruited, they look to Handshake. If they are looking for capstone projects, they are to look to staff and other internal resources like existing classes. This helps to focus on the primary user pool. Furthermore, staff and other individuals with cmu.edu email addresses are all expected to be secondary users. Adam has stated the primary purpose is to serve external partners - those without cmu.edu email addresses.

MVP

After much time spent on analyzing similar organizations, we have found that the Heinz website for corporate relations and employers is a good example. The content organized in the SCS and CIT sites were poorly organized and difficult to navigate. From both the Heinz site and some parts of the 67-240 team 2's design, we were able to get the first version of the site layout and navigation (v1). From there, we discussed internally who the users were and how they would be navigating the content depending on their desires (v2). From there, we discussed with Adam Causgrove and were able to get more accurate feedback on how the expected users would navigate the content (i.e. no executive education page as that department is early in its development within Dietrich, not expecting students to be using this site). As we have finalized the site layout with our meeting with Adam Causgrove, we are now able to see the bigger picture of content organization and user navigation (v3).

Site Layout and Navigation v3



Data Dictionary

Dietrich College Advancement Website

Lead			
Field	Data Type	Description	Example
First name	STRING	Text box. First name of the person filling out the form.	John
Last name	STRING	Text box. Last name of the person filling out the form.	Smith
Email	STRING	Text box with validation. Email address to contact user.	john@smith.com
Company	STRING	Text box. Company the user is representing	Acme, Inc.
Job title	STRING	Text box. Job title of the user at said company	Recruiter
Interested in...	STRING	Dropdown - Recruiting our	Student recruitment

		students, Engaging through research, Participating in experiential learning. Describes the goal of the user.	
Referred by...	STRING	Dropdown - Business Engagement Center, CPDC, Dietrich Staff/Faculty, Google, LinkedIn, Other. Tells how the user found the website.	CPDC
Comments	STRING	Text box. General notes from the user. Not required.	Excited to work together!

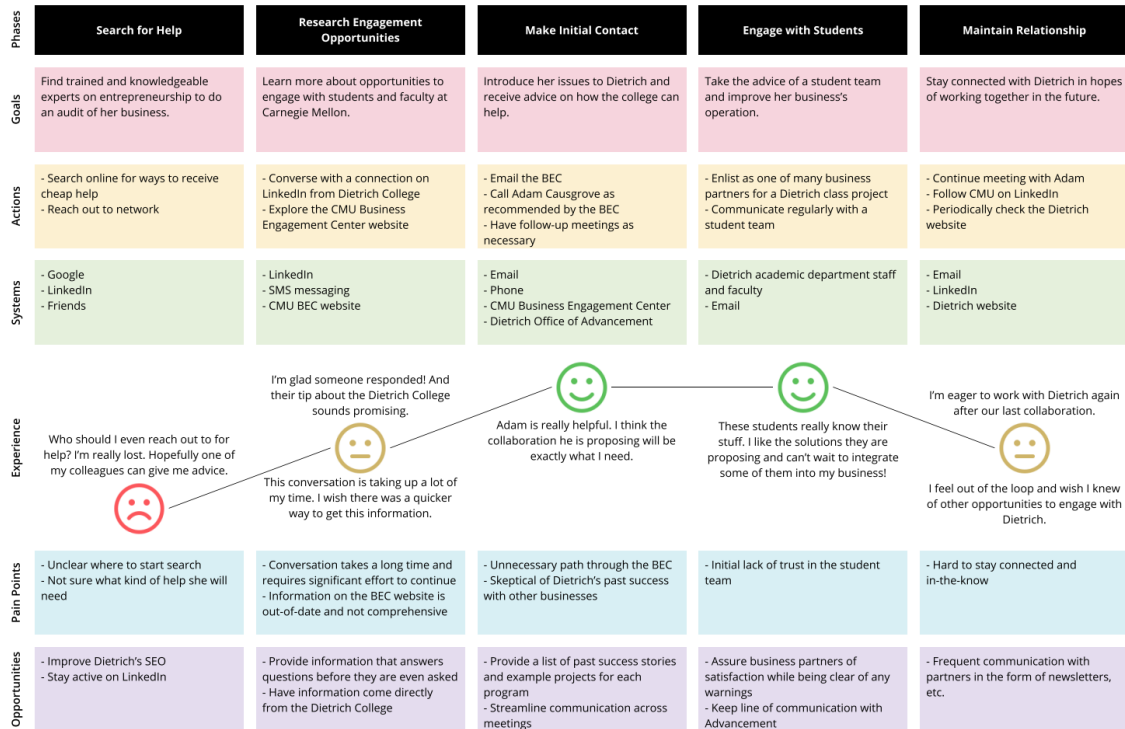
All required except comments.

Customer Journey Map

Dietrich College Advancement Website

Partner Journey Map

Nicole
Small business owner in Pittsburgh, PA



Adapted from guidance by Adam Causgrove. Not based on real user research.

User Personas



Shavonne Moss

User Persona

Shavonne works at the United States Centers for Disease Control and Prevention. She spends her time researching public health and predicting potential threats to the country. COVID-19 has shown that the U.S. was unprepared for a pandemic, and she's been faced with the challenge of finding the faults in the government's response and developing better systems for future prediction.

Goals

Given the extensive demands of her assignment, Shavonne is seeking help from universities with advanced research programs to assist with her work.

*35 years old
Government Researcher
Lives in Atlanta, GA*

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Michael Anker

User Persona

Michael works as a recruiter for Thermo Fisher Scientific. His job is to attract the best talent to Thermo Fisher with a focus on recent college graduates. He travels frequently to work career fairs and conduct interviews.

Goals

To make college students more aware of the work done at Thermo Fisher, he wants to sponsor class projects. After the projects conclude he'll work with career services to discuss opportunities to recruit. He hopes that if they can become an annual project sponsor, Thermo Fisher will become a top destination for motivated college graduates.

*41 years old
Recruiter
Lives in Waltham, MA*

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Nicole Barna

User Persona

Nicole recently started her own small business in the Pittsburgh area. Her work involves frequent communication with other local businesses. Nicole has a very small team of full-time employees at her business, so she often has to work with freelancers for extra help on bigger projects. She never received any formal training on being an entrepreneur and learned everything about starting a business from the Internet.

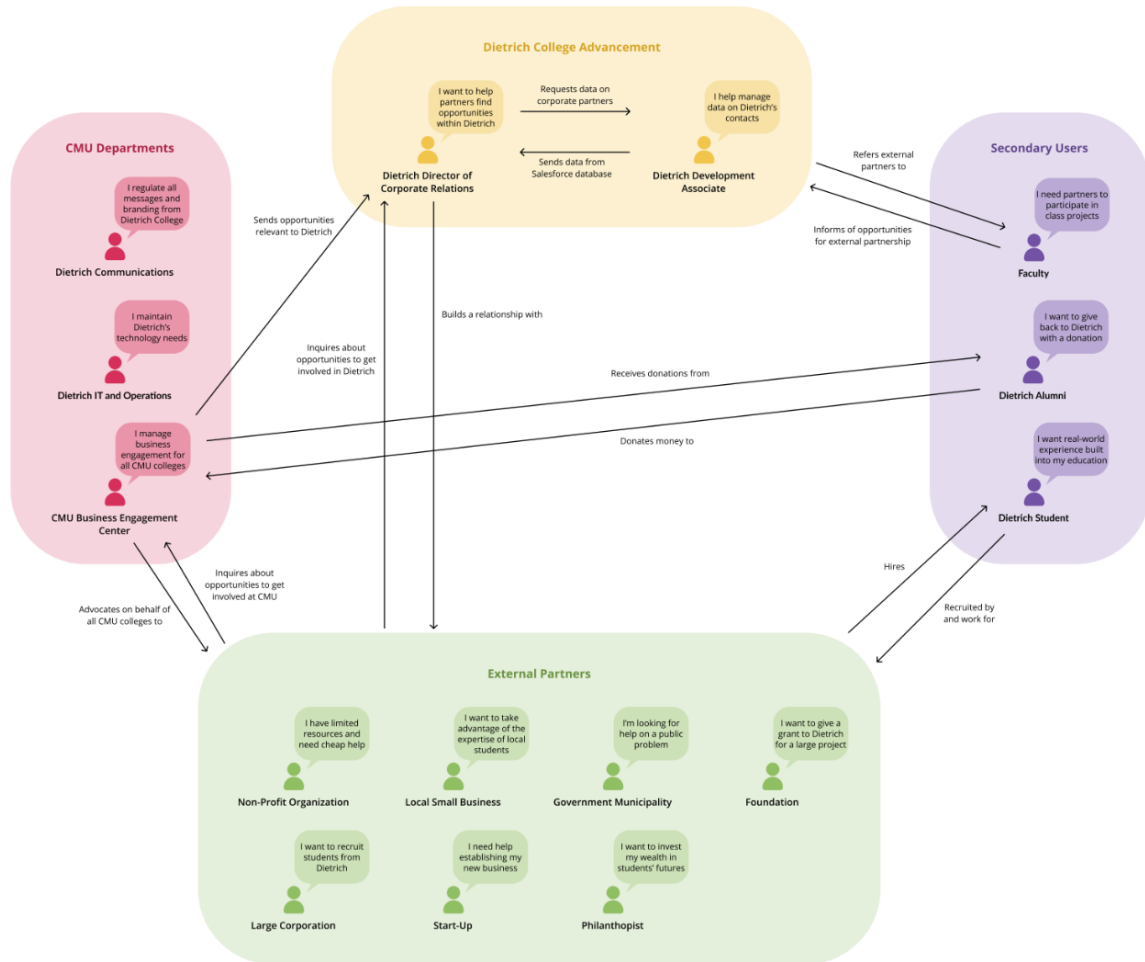
Goals

Nicole would like to tap into the expertise of students from nearby Carnegie Mellon University. She is looking for ways to improve her operational efficiency and hopes students can make suggestions/develop solutions at a low cost.

*28 years old
Small Business Owner
Lives in Pittsburgh, PA*

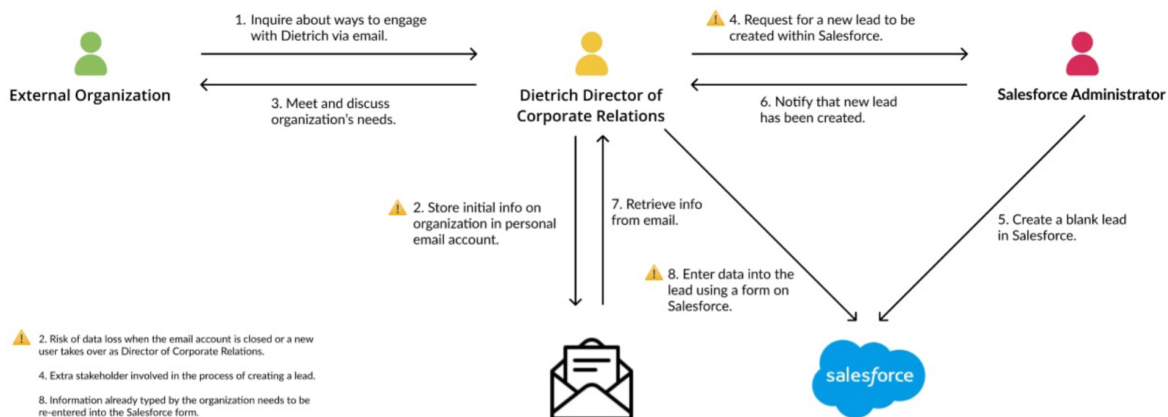
Stakeholder Map

Dietrich College Advancement
Stakeholder Map
David Domalik, Andy Park, Sohan Kalva



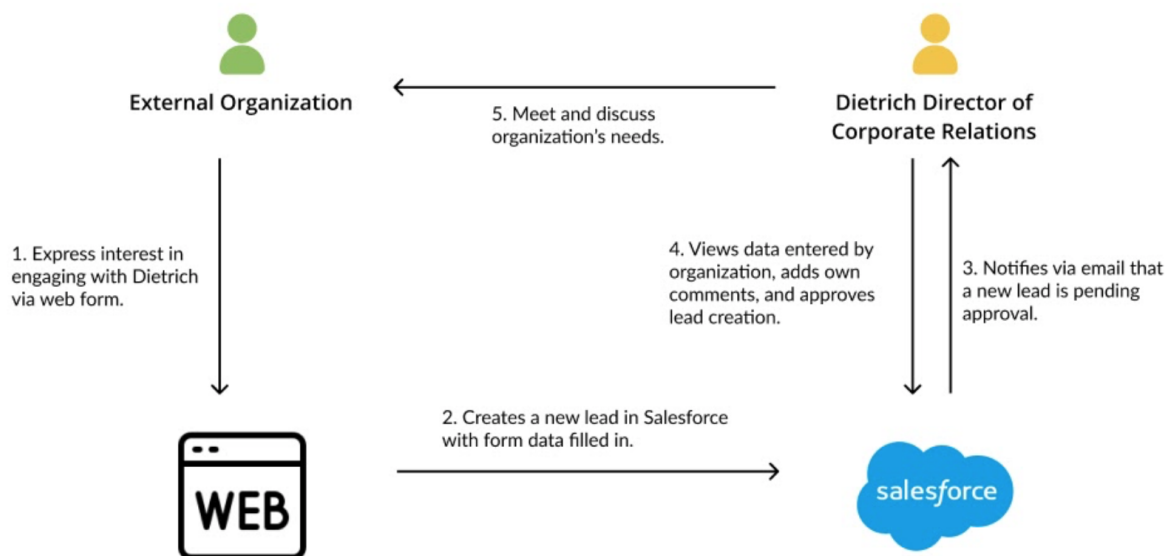
Past Salesforce Process

Past Process Flow



New Salesforce Process

New Process Flow



User Testing: Think-Aloud Protocol

Dietrich College Advancement Website

Introduction

- Introduce yourself: I'm [TEAMMATE 1] and I'll be guiding you through our research process today. I'm joined by [TEAMMATE 2] and [TEAMMATE 3], who may also ask questions throughout. Thank you for taking the time to participate.

- Purpose: We're a team of student consultants working with the Office of Advancement in Carnegie Mellon's Dietrich College to develop a new website that provides prospective and current business partners with information on how to engage with the college. I'll be asking you to complete three tasks on our website and would like you to speak out all the thoughts going through your head as you complete them. Let me know when you believe you've completed each task. The research should last about 15 minutes. Sound good?
- Consent: Before we get started, I wanted to confirm that your participation in our study is voluntary. By participating, you agree that we can use your answers to improve our project. Any feedback you give will likely be shared with staff and faculty in the Dietrich College unless you specify otherwise. Please let me know now if any of that is an issue.

Warm-Up

- Are you at all familiar with the ways organizations can partner with Dietrich College?

Task 1: Find an example of a successful Capstone project.

- There are a number of ways to reach the Capstone page (nav bar, sidebar, home page). Which way do users choose?
- How quickly do users notice the examples?

Task 2: Express interest in recruiting Dietrich students.

- Do users use the nav bar to reach the recruitment page or do they see the Also Consider block?
- Are all the form fields clear?

Task 3: Find the date of the Undergraduate Research Symposium.

- What page do users go to?
- Where do users look for events?

Cool Down

- After spending a few minutes on the website, what can you tell me about engaging with Dietrich College?

Wrap-Up

- That's all the tasks have. Is there anything else you want to tell us?
- Do you have any questions for me?
- Thanks again for your participation.

Approved Success Stories (received from Adam)

<https://www.cmu.edu/engage/about-us/news/partner/chrobinson.html>

Summary: Logistics company worked with CMU Statistics students in a capstone capacity

Page: Capstone Projects / Experiential Learning

<https://www.cmu.edu/dietrich/news/news-stories/2020/august/capstone-msp.html>

Summary: MSP (graduate level Statistics students) worked with SESCO Enterprises to predict future energy prices in a capstone capacity

Page: Capstone Projects / Experiential Learning

<https://www.cmu.edu/engage/about-us/news/partner/talent-meets-opportunity.html>

Summary: Statistics students worked with Principal Financial Group

Important to note: First to support concurrent student projects in one semester across three colleges - Dietrich, Tepper, and Heinz

Page: Capstone Projects / Experiential Learning

Curated from other pages (pre-approval)

<https://www.cmu.edu/career/students-and-alumni/senior-spotlight/index.html>

Summary: Seniors with internships showcased, two are from Dietrich

Page: Recruitment

<https://www.cmu.edu/dietrich/news/news-stories/2021/april/google-balakrishnan.html>

Summary: Dietrich faculty received grant money for research from Google

Page: Research (faculty)

<https://www.cmu.edu/dietrich/about/year-in-review/index.html>

Summary: Good pdf to receive more content from (e.g. example of employers, research projects, events with external partners)

Page: All

<https://www.cmu.edu/dietrich/students/undergraduate/careers-internships/career-opportunities.html>

Summary: Dietrich undergraduate recruitment information (e.g. example employers, skill sets specific to majors)

Page: Recruitment

Up to Date Site Pictures(05/07/21)

Engaging with Dietrich College

Dietrich College of Humanities and Social Sciences

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Adam Causgrove

Associate Director of Corporate Relations

causgrove@cmu.edu
814-397-6388



Liz Cooper

Associate Dean for Advancement

lizcooper@cmu.edu
412-268-7713



David Gardner

Development Associate

davidgar@cmu.edu
412-268-3194



Mary Lloyd

Associate Director of Development

lloydmd@andrew.cmu.edu
412-268-1075

Dietrich College of Humanities and Social Sciences
Carnegie Mellon University
5000 Forbes Avenue
Pittsburgh, PA 15213



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Today, we work...with you!

Partner With Us

At the Dietrich College, we do the work that matters. Our diverse and interdisciplinary educational model makes our students uniquely suited to tackle any problem and change the world. We welcome all organizations looking to join forces with the Dietrich College through one of our mutually-beneficial research or recruitment programs to reach out. Together, we'll build a better future for all.

Past and Current Partners

- Facebook
- Google
- Principal Financial Group
- Thermo Fisher Scientific

Propose A Capstone Project

The faculty of Dietrich College understand how valuable it is for students to experience solving real-world problems. Capstone projects do exactly that and bring multifaceted benefits to your organization: utilize the talent of Dietrich students on a project while introducing your organization to tomorrow's workforce.

[READ MORE ►](#)

Engage Through Research

Gain access to the expertise of Dietrich College students and faculty by sponsoring research that will tackle a problem specified by your company, exploring the issue and receiving recommendations throughout the work. These research engagements are available throughout the year within various academic departments.

[READ MORE ►](#)

Recruit Our Students

The Dietrich College is filled with multidisciplinary and highly employable talent capable of taking on the demands of working at your organization. Find out how you can get involved in departmental career fairs and recruitment events or set up interview days for recent graduates.

[READ MORE ►](#)

Not sure where to begin? Reach out and we'll provide more personalized assistance on how to engage with Dietrich College.

Adam Causgrove

Associate Director of Corporate Relations
814-397-6388
causgrove@cmu.edu

Dietrich College of Humanities and Social Sciences
Carnegie Mellon University
5000 Forbes Avenue
Pittsburgh, PA 15213



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Capstone Projects

Receive both recruitment and research benefits for your organization by sponsoring a semester long capstone project.

Dietrich College of Humanities and Social Sciences > Engaging with Dietrich College > Propose A Capstone Project

A Hotbed for Experiential Learning

We at Dietrich College believe the application of coursework to real-world scenarios is essential to our students' education. Capstone projects do just that. Sponsoring a capstone project not only helps our students gain valuable experience, but it allows you to learn from the fresh knowledge of advanced Dietrich College students and introduces your company to full-time job seekers who will be entering the market.

All Dietrich College capstone projects are...

- Led by a faculty member with domain expertise.
- Teams of 3-5 talented students from Dietrich College's diverse student body.
- One semester in length.

Examples of Excellence

Principal Financial Group partners with CMU students to revolutionize retirement, insurance and asset management spaces.

Students in the Department of Statistics and Data Science built a statistical model that combines real estate returns with accurate predictions in diverse markets across different property types using real-world data from Principal Financial Group.

This partnership was the first to support concurrent student projects in one semester across three of Carnegie Mellon's colleges — the Dietrich College of Humanities and Social Sciences, Tepper School of Business and Heinz College of Information Systems and Public Policy.

"When it comes to cross-campus collaboration, Carnegie Mellon University puts it to practice, and it's immensely powerful," said Joseph Byrum, Principal's chief data scientist.

[READ MORE ABOUT OUR PARTNERSHIP WITH PRINCIPAL FINANCIAL GROUP](#)

Graduates partner with SESCO Enterprises, LLC to tackle the energy market.

Students completing their Master of Statistical Practice at Carnegie Mellon University selected a project aiming to improve forecasting in the power system. Sabrina Zhu and two of her colleagues joined SESCO Enterprises, LLC, a NYC-registered power marketer, on this project. To examine this process, Zhu and her colleagues built a regression model using historical data to simulate market conditions.

"We did not expect [the team] to solve the problem completely. Instead, we hoped they can be creative and thoughtful on designing their approach. They have exceeded all expectations," said Jan Zhu, manager of quantitative trading at SESCO Enterprises, LLC.

"Students can truly understand what it means to work in data science on actual industry problems, with real data, with a real industry client, while industry partners can tap into the fresh perspectives provided by these highly capable and expertly trained modern data scientists," said Jamie McIlwain, Special Faculty, director of the Master of Statistical Practice Program.

[READ MORE ABOUT OUR PARTNERSHIP WITH SESCO ENTERPRISES, LLC](#)

Propose a Capstone Project

First Name

Last Name

Email

Company

Title

Referred By

--None--

Comments:

SUBMIT

Also Consider...

Opportunities to recruit. Once students learn more about your organization through a capstone project, they often have a growing interest in the type of work you do.

[LEARN MORE ABOUT RECRUITMENT AT DIETRICH COLLEGE](#)

Not sure where to begin? Reach out and we'll provide more personalized assistance on how to engage with Dietrich College.

Adam Caugrove

Associate Director of Corporate Relations

814-397-6388

caugrove@cmu.edu

Dietrich College of Humanities and Social Sciences

Carnegie Mellon University

5000 Forbes Avenue

Pittsburgh, PA 15213

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Recruit Interns & Full-Time Employees

Carnegie Mellon University's Career and Professional Development Center can help your business recruit our students and alumni through:

- Handshake Job Postings & Engagement
- Career Events and Information Sessions
- Campus Branding Strategy Development
- Department Connections and Presentations

CMU Employer Toolkit

Dietrich College Career Outcomes

2021-22
Sep 16

Technical Opportunities Conference (TOD)

2021-22
Sep 16

Encorepass + Carnegie Mellon Valley Virtual Career Fair

2021-22
Jan 27

Jumpstart Sponsored by Apple

2021-22
Feb 18

Creative Arts Virtual Career Fair (part of CMU)

Learn About Our Degree Programs

Dietrich College students and alumni are prepared to address the complex challenges and opportunities facing your organization. Our students and alumni possess a variety of skills spanning technical writing, data science, research methods, policy analysis and more. [Learn more about our multi-disciplinary academic programs.](#)

There are multiple opportunities throughout the year to become involved and increase your company's brand recognition on campus, even if you do not have any current open positions. For more information about these opportunities, or if you have other questions about recruiting Dietrich College students, please contact Joe Battellone (jbattell@andrew.cmu.edu) or Kristin Stautson (kstautson@cmu.edu).

Employer Testimonials

Dietrich College Interns Help Local Organizations Blossom

The Pittsburgh Summer Internship Program (PSIP) provides financial support and resources to connect Dietrich College undergraduate students to their first internship experience at a nonprofit, startup or small business in the Pittsburgh area.

"The PSIP has been an invaluable resource for our company and our clients. The interns have helped our low- to moderate-income entrepreneurs build marketing plans and learn how to use technology in their businesses. This is a service that our clients could not afford and they would miss out on if not for the PSIP. Truly impactful program!" said Trish Digibello, co-founder and president of PaymentPivots, a small business incubator program and coworking space in Beaver County.

[Learn more about this partnership and the Pittsburgh Summer Internship Program.](#)

Designer at Apple: Rae Lasko (DC 2019)

Rae Lasko majored in cognitive science and human-computer interaction and joined Apple in 2019.

What are you most excited for? Why this company?

"I'm most excited to be working with some of the most genuine and talented people I've met over the last few years. I've developed many close friendships and mentorships over my summers as an intern so I'm excited to be able to continue these friendships."

Also, because I interned there for the past three years, I received a full-time offer for a position that is difficult for a new graduate to get. This position allows me to combine both my passions in psychology and design.

[Learn more about Lasko's recruitment experience.](#)

Let's Get Recruiting!

First Name

Last Name

Email

Company

Title

Referred By

--None--

Comments

SUMMIT

Also Consider...

Engaging through research, sponsoring research projects allows you to connect with our students and introduce them to your company before they graduate. In return, you'll gain valuable insight into the topic of your choice.

[LEARN MORE ABOUT RESEARCH AT DIETRICH COLLEGE](#)

Not sure where to begin? Reach out and we'll provide more personalized assistance on how to engage with Dietrich.

Adam Coatsgrove
Associate Director of Corporate Relations
614-201-2288
coatsgrove@cmu.edu

Dietrich College of Humanities and Social Sciences
Carnegie Mellon University
3800 Forbes Avenue
Pittsburgh, PA 15261

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Interdisciplinary Research

Engage our world-class faculty and students in a research project with your organization.

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Sponsored Research Opportunities

Sponsoring research allows you to connect with our faculty and students and gain valuable insight into the topic of your choice. Pick between the three research tiers below to sponsor based on what best fits your goals.

Tier 1: Student Capstones and Educational Research Agreements

A team of CMU students, with faculty oversight, will tackle a problem, case or focus specified by your company, exploring the issue and making recommendations through their work.

- These 16- to 32-week engagements are available every fall and spring in a variety of fields.
- \$0-\$80,000

Tier 2: Unrestricted Faculty Research

Your company can support the amazing research being done by faculty across campus with an unrestricted gift. This philanthropic support can advance cutting-edge research in a field that aligns with your organization's mission and values.

Tier 3: Sponsored Research and Sponsored Research Agreements

Your company will fund research projects orchestrated by CMU's talented faculty with Ph.D.-level involvement. You elect the project and deliverables.

Meeting of the Minds

May 10

The Undergraduate Research Symposium, in the "Meeting of the Minds," is a university-wide celebration of undergraduate research. We welcome you to come see what our students have been working on this past year.

Examples of Excellence

Dietrich Faculty Among Six Grants Awarded by Google

Six Carnegie Mellon University faculty members, including one affiliated with the Dietrich College of Humanities and Social Sciences, received grants through Google's inaugural Research Scholar Program. The program provides up to \$60,000 to support the research efforts of early career professors.

Sivaraman Balakrishnan, an assistant professor of statistics in the Dietrich College and an affiliate faculty member in the Machine Learning Department, received a grant jointly with Alexander Vowachyev, an assistant professor in the Computer Science Department at Northwestern University.

Learn more about CMU faculty involved in the [Google Research Scholar Program](#).

Knight Foundation Investment Creates Center To Fight Online Disinformation

Facts, truth, state-run propaganda, information warfare and hate speech are some of the most pernicious ways that societal discourse is being warped in the modern era. In 2019, CMU launched the Center for Informed Democracy and Social Cybersecurity (CIDS) to explore how disinformation is spread through online channels and address how to counter its effects to promote and build an informed citizenry. The Knight Foundation provided a \$1 million, six-year investment for Knight Fellow, as well as an annual conference of scientists, practitioners, journalists and policymakers to discuss research and public policy around technology's impact on democracy. The center aims to develop effective solutions with teams of experts in network analysis, machine learning and natural language processing, as well as ethics, sociology and political science. The School of Computer Science's Kathleen Carley directs CIDS. Dietrich College's David Banks and the College of Engineering's Douglas Dickson serve as co-directors.

Propose a Research Opportunity

First Name

Last Name

Email

Company

Title

Referred By

None

Comments

SUBMIT

Also Consider...

Submitting a capstone project idea. Our students are eager to learn more about work being done in industry, nonprofit and government sectors. You'll know the project with actionable insights that can be integrated into your daily operations.

[LEARN MORE ABOUT CAPSTONE PROJECTS AT DIETRICH COLLEGE](#)

Not sure where to begin? Reach out and we'll provide more personalized assistance on how to engage with Dietrich College.

Adam Casagrove

Associate Director of Corporate Relations

814.397.4308

acagrove@cmu.edu

Dietrich College of Humanities and Social Sciences

Carnegie Mellon University

5000 Forbes Avenue

Pittsburgh, PA 15213

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