

# Ethan Marshall

Farmington Hills, MI • (313) 605-9030 • ethanmar@umich.edu

## EDUCATION

---

### University of Michigan

*BSE, Computer Science & Engineering*  
GPA: 3.639

*Ann Arbor, MI*  
August 2021 – December 2024

### Schoolcraft College

*Dual-enrollment classes*  
GPA: 3.867

*Livonia, MI*  
June 2017 – May 2022

## RESEARCH EXPERIENCE

---

### University of Michigan

*Assistant in Research*

*Department of Civil & Environmental Engineering*

*Ann Arbor, MI*  
June 2024 – Present

- Developed new user interfaces and data patterns for a fatigue detection application in SwiftUI and Python, interfacing with a Bluetooth wearable and deploying to multiple construction sites in Ann Arbor with positive user feedback.
- Designed and built a React Native application to record and analyze construction workers' creativity levels using Google Firebase tools.
- Lead the Dynamic Project Management lab's commercialization efforts by conducting customer discovery interviews, creating business plan documents, and attending workshop sessions.

## TEACHING EXPERIENCE

---

### University of Michigan

*Development Instructional Assistant*

*Department of Computer Science & Engineering*

*Ann Arbor, MI*  
June 2024 – August 2024

- Formulated new assignments, rubrics, and tutorials for the Social Consequences of Computing course at U-M.
- Integrated social computing topics into new homework using Python, Markdown, and an auto-grader system.
- Scaled up the course's content and grade policies to prepare for its move from an elective to a core computer science class.

## HONORS & AWARDS

---

### 20Fathoms

+ TCNewTech Funding Competition Finalist

*Traverse City, MI*  
April 2024

<b>University of Michigan</b>	<i>Ann Arbor, MI</i>
+ Center for Entrepreneurship Fuel Award (\$7,500)	January 2024
+ Business+Tech Innovation Jam First Place Winner (\$7,000)	November 2022
+ University Honors	2022, 2023
+ Dean's List	2021, 2022, 2023

<b>Apple Worldwide Developers Conference</b>	<i>Cupertino, CA</i>
+ Swift Student Challenge Winner & Invited Attendee	June 2023
+ Swift Student Challenge Winner	June 2022

## LEADERSHIP EXPERIENCE

---

<b>Zeta Pi Professional Technology Fraternity</b>	March 2024 – December 2024
<i>Head of Projects &amp; Tech</i>	
<ul style="list-style-type: none"> <li>• Taught workshops on React Native and app development to small groups of Zeta Pi members using a custom, interactive tutorial system based on Apple's DocC technology.</li> <li>• Organized member project groups, tasking them with app development projects and acting in a project manager role to ensure deliverables were met.</li> <li>• Served as an executive board member, helping to guide the overall vision of the group of 97 members via high-level organizational decisions.</li> </ul>	

<b>Michigan Sport Business Conference</b>	January 2024 – December 2024
<i>Director of Team Relations</i>	
<ul style="list-style-type: none"> <li>• Fostered a tight-knit planning team welcoming of diverse people and ideas by planning team-bonding initiatives, monitoring group culture, and engaging MSBC with philanthropic efforts.</li> <li>• Directed efforts to recruit the next MSBC team by creating applications and organizing events, receiving over 200 applications for the 2025 team.</li> </ul>	

## PROFESSIONAL AFFILIATIONS

---

<b>Zeta Pi Professional Technology Fraternity</b>	<i>Ann Arbor, MI</i>
<i>Member, Head of Projects &amp; Tech</i>	September 2023 – December 2024

<b>Michigan Sport Business Conference</b>	<i>Ann Arbor, MI</i>
<i>Creative Manager, Director of Team Relations</i>	January 2023 – December 2024

## PROFESSIONAL EXPERIENCE

---

<b>Franklin-Bingham Fire Department</b>	<i>Franklin, MI</i>
<i>Full-Stack Developer</i>	September 2024 - Present
<ul style="list-style-type: none"> <li>• Devise and develop the front- and back-ends of a React Native application to assist firefighters with quickly accessing over 300 critical phone numbers, locations, and other important data items.</li> <li>• Conduct usability testing with potential users to improve the application based on real user feedback.</li> </ul>	

- Deploy the application using iOS and Android enterprise distribution to firefighters' devices in the field.

## **Radiance Technologies**

*Dayton, OH*

*Modeling and Simulation Intern*

June 2023 – August 2023

- Implemented and tested a custom package system to make a common military simulation program more accessible to thousands of non-technical users.
- Conceived a variant of the standard package resolution algorithm to meet the specific needs of the software, building out the system using Rust and C++.

*Modeling, Analytics, and Simulation Sciences Engineer Intern*

June 2022 – August 2022

- Constructed new user interfaces for Air Force simulation software using Qt and C++, integrating it with existing data structures and systems.
- Added a set of cybersecurity simulation tools into the software, including cyber attacks, defenses, and other interactions.

## **DEVELOPMENT EXPERIENCE**

*Full portfolio: [ethan-marshall.com](http://ethan-marshall.com)*

### **CORE (Connecting Research)**

October 2022 - Present

- Dictate the technology operations of the organization, acting as the sole developer, creating applications in SwiftUI and React to bring advanced clinical trials into the hands of more researchers and participants.
- Guide the strategy of the startup, facilitating new features, value propositions, customer discovery, and other business-plan items.

### **Pixel Pursuit**

April 2023

- Ideated and created an augmented-reality game using SwiftUI and Apple's RealityKit, aimed at educating general audiences about the process of computer forensics.
- Incorporated social concepts by challenging users to make real-world investigative decisions in the context of the game's narrative.

### **One Step Ahead**

April 2022

- Trained and deployed machine learning models which analyzed and scored user sketches in a game-based setting, attempting to "beat" human users at drawing an object.
- Submitted the game to the App Store, adding achievements, game modes, supporting more devices, and improving the user experience.

### **Metrics for Product Zone**

July 2021 - August 2021

- Built a custom tracking system for iPhone and Apple Watch which monitored and analyzed Apple Retail performance metrics normally reserved for management.
- Released the application on the App Store, receiving user feedback and downloads from other Apple Store employees.

## REFERENCES

---

**Dr. SangHyun Lee**

Professor, Civil & Environmental Engineering  
John L. Tishman CM Faculty Scholar  
Director, Dynamic Project Management Lab  
*shdpm@umich.edu*

*University of Michigan  
Ann Arbor, MI*

**Dr. Juhyeon Bae**

Assistant Professor, College of Engineering  
Research Supervisor, Dynamic Project Management Lab  
*jbae3@sdsu.edu*

*San Diego State University  
San Diego, CA*

**Dr. Karthik Ramani**

Clinical Associate Professor of Internal Medicine  
Medical Director, MPLAN  
Fellow Co-Founder, CORE  
*ramanik@umich.edu*

*University of Michigan  
Ann Arbor, MI*

**Emily Latham**

J.D. Candidate, Emory University School of Law  
Former Director, Talent Acquisition, Miami Dolphins  
Industry Mentor, Michigan Sport Business Conference  
*emilytullislatham@gmail.com*

*Emory University  
Atlanta, GA*