

Parker Mathena

parkermathena.com | [LinkedIn](#) | 734-778-2166 | pmathena@umich.edu

EDUCATION

University of Michigan <i>Bachelor of Science Engineering in Computer Science</i>	Ann Arbor, MI <i>May 2024</i>
---	---

- Relevant Courses: Discrete Mathematics, Data Structures and Algorithms, Linear Algebra, Computer Organization, Computer Security, Web Systems, Operating Systems, Software Engineering, Video Game Development, Information Retrieval and Web Search

WORK EXPERIENCE

Rocket Mortgage <i>Software Engineer Intern</i>	Detroit, MI <i>May 2023 - August 2023</i>
---	---

- Created and configured an AWS user and role to be used with an internal API. Updated the API to send daily emails with a presigned URL to download a report from an AWS S3 bucket
- Designed and implemented 'Hackweek' project that converted Excel data dictionaries to JSON files for a web app data dictionary platform
- Created unit tests for a new API feature that identified a calculation bug. Quickly identified and implemented a solution
- Learned C#, .NET, and AWS through assigned tasks and trainings

University of Michigan <i>Instructional Assistant for Programming and Intro Data Structures</i>	Ann Arbor, MI <i>August 2022 - May 2024</i>
---	---

- Assisting in instruction of 1000+ students by holding office hours, writing and evaluating exams, teaching a lab section, and answering questions in lecture and a Q&A forum

PROJECT EXPERIENCE

Kai: Lost Waters <i>Co-creator</i>	Ann Arbor, MI <i>March 2024 - April 2024</i>
--	--

- Showcase winning 2D puzzle game which lets the player control water with realistic physics
- Assisted in design and implementation of 2 major levels along with 20+ puzzles, 20 minutes of gameplay
- Created a dynamic title screen and dynamic credits scene
- Built in Unity with C#, used Jira for project management software

Michigan Hackers iOS Subteam <i>Co-lead</i>	Ann Arbor, MI <i>January 2024 - May 2024</i>
---	--

- Organize and run weekly hack-nights working on a mobile course recommendation application for UofM

Network File Server <i>Co-creator</i>	Ann Arbor, MI <i>November 2023</i>
---	--

- Implemented a multi-threaded network file server in C++ with fine-grained locking, included hierarchical file systems, socket programming, client-server systems, and network protocols

Search Engine <i>Co-creator</i>	Ann Arbor, MI <i>March 2023</i>
---	---

- Scalable search engine running on multiple servers. Search index servers use a Map Reduce pipeline to create an inverted index of results. Built using Python, Flask, Jinja, REST API

SKILLS

Skills: C++ | Python | C# | Unity | JavaScript | MATLAB | Jira