Krithika Venkatasubramanian

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EDUCATION

University of Michigan **Ann Arbor, MI**
Bachelor of Science in Computer Science *April 2025*
GPA: 3.87 / 4.00
Coursework: Data Structures and Algorithms, Web Design, Intro to Computer Organization, Intro to Computer Security, Web Systems, Intro to Artificial Intelligence, Linear Algebra, Honors Intro Statistics, Discrete Mathematics
Activities: Eta Kappa Nu (Computer Science Honor Society) - Active Member

SKILLS

Languages: C++, Python, C, Kotlin, JavaScript, TypeScript, R, HTML, CSS, SQL
Libraries/Frameworks: React, Angular, D3.js, Material UI, BeautifulSoup4, Selenium, pandas, jinja2, Flask
Developer Tools: AWS, Git, Docker, Cypress, Percy, Android Studio, Ghidra, Wireshark, Autopsy, Figma, Jira

EXPERIENCE

Software Engineering Intern **Remote**
Mathematica Policy Research *June 2023 - August 2023*
- Parse 100+ large data sets into easily queryable MySQL databases with AWS S3 and SQS
- Modernize testing procedures by integrating into AWS, eliminating manual testing requirements
- Extract structured data from unstructured websites using BeautifulSoup4, Selenium, and Python
- Build new interface for the official Medicaid website with Angular and TypeScript, enhancing user experience
- Implement CI/CD pipeline in GitHub Actions with Cypress, reducing false positives by over 50%
- Utilize the D3.js, React and Material UI libraries to create an interactive data visualization dashboard

Software Developer & Research Assistant **Ann Arbor, MI**
Center for Healthcare Engineering and Patient Safety @ University of Michigan *August 2022 - Present*
- Develop software in C++ to allow the Veterans' Association in Ann Arbor to optimize resources for screening of at-risk veterans for lung cancer, delivering 3 weeks ahead of schedule and eliminating need for manual allocation
- Co-authored research paper on above software - submitted to scientific journal (Springer Nature)
- Use C++ to efficiently build and optimize pediatric resident ED shift schedules, reducing burden on hospital staff

Instructional Assistant - EECS 183 **Ann Arbor, MI**
Computer Science and Engineering @ University of Michigan *August 2022 - Present*
- Teach introductory CS lab section, covering fundamentals of C++, Python, and Object-Oriented Programming
- Spearheaded the reintegration of an Arduino-based final project for students and host weekly office hours
- Support students' study of elementary programming concepts while fostering an open and inclusive environment
- Assist in drafting and disseminating course exams to gauge learning for 1000+ students

Business Subteam Lead **Ann Arbor, MI**
M-HEAL Team DRIP *September 2021 - Present*
- Collaborate with Technical Subteam to build a low-cost prosthetic to help patients in Puerto Peñasco, Mexico with diabetic amputations regain mobility
- Awarded finalist status at the 2023 Johns Hopkins Healthcare Design Competition
- Build website using HTML, CSS and React to increase team visibility
- Lead creation, operation, and expansion of business subteam - obtain $500+ in funding for team, enter design competitions, and onboard new members

PERSONAL PROJECTS

US Drug Overdose Dashboard: Web Application *July 2023*
- Used Python script to parse 200-column public dataset
- Built dynamic web dashboard of US drug overdose deaths and mitigation approaches with React and Material UI
- Leveraged d3.js to create advanced visualizations of data, extracting meaningful patterns and trends

KWordle *April 2022 - July 2022*
- Built Wordle for use on the command line using VS Code and C++
- Utilized Android Studio to build an Android App in Kotlin for Wordle
- Programmed smart computer player that can utilize clues given by player to make guesses
- Added functionalities such as reversing player roles and 2-player Wordle