

Amelia Rave

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OBJECTIVE

Adaptable Computer Science graduate with comprehensive skills across front and back-end development, skilled at creating seamless user experiences with JavaScript and D3.js, and strengthening core functionalities with C++ and Python. Aiming to join a collaborative team where I can apply my versatile expertise and problem-solving abilities to deliver robust software solutions.

EDUCATION

University of Michigan, *Bachelor of Science in Computer Science*

Aug 2022

SKILLS

C++ | C | JavaScript | Python | D3.js | Node.js | React | jQuery | PostgreSQL | APIs | Github | VSCode

PROFESSIONAL EXPERIENCE

Private Contract, *Front End Software Engineer*

Aug 2023 – present

- Engineered an interactive timeline using D3.js for real-time data visualization, enabling user navigation and analytical capabilities for document history
- Consistently resolved technical issues and documented troubleshooting steps, enriching the project's knowledge base and facilitating future issue resolution

Hyperlink, *Full Stack Software Engineer Intern*

Jun 2023 – Aug 2023

- Led the successful deployment and troubleshooting of a forward proxy server, optimizing accessibility and increasing potential revenue by 15%
- Streamlined React user interface improvements and standardized the CSS codebase, facilitating a boost in development efficiency and fostering cross-functional collaboration

University of Michigan, *Comprehensive Studies Program Tutor*

Nov 2020 – Dec 2021

- Mentored 5 students per semester in Computer Science and Spanish courses, improving their academic performance and confidence while honing my ability to explain complex technical concepts clearly

University of Michigan, *Resident Advisor*

Dec 2018 – May 2019

- Navigated interpersonal dynamics within a diverse community of 28 residents, fostering an inclusive and cooperative environment while sharpening skills essential for cross-functional teamwork and communication

ORGANIZATIONS

Girls Talk Tech, *Outreach Committee, Program Instructor* [🔗](#)

Dec 2018 – Aug 2022

- Collaboratively designed and delivered engaging lesson plans in Python, C++, and data structures, enhancing technical literacy and fostering problem-solving skills among 20 students, underpinning a commitment to education and empowerment

PROJECTS

Interactive Timeline Visualization Tool, *D3.js, HTML, CSS, Webpack* [🔗](#)

Present

- Architected a sophisticated web-based visualization tool using D3.js, encapsulating a complex frontend system handling real-time data rendering and interactive user controls.
- Engineered robust frontend mechanics including SVG element manipulation, custom zoom and drag functionalities, and dynamic axis scaling, all within a modular and reusable codebase that manages state transitions to deliver a responsive user experience in analyzing document history.

Pipelined Processor, *C, ARM ISA, Linux Command Line* [🔗](#)

Jul 2022

- Engineered an assembler and behavioral simulator to convert assembly programs into machine code and simulate program execution, focusing on optimizing the technical processes within a custom pipelined processor
- Improved processor reliability by strategically designing assembly programs that accounted for all edge cases. Conducted QA checks to ensure minimal errors, resulting in enhanced system stability

MonoChrome Extension, *JavaScript, HTML, CSS* [🔗](#)

Jul 2022

- Ideated and developed a browser extension in collaboration with peers to standardize and customize users' web browsing experience emphasizing the ability to design simple and intuitive user interfaces
- Facilitated project management as a team lead to conceptualize requirements, user stories, use cases, and user tests reinforcing strong interpersonal and communication skills

Multinomial Naive Bayes: Wikipedia Biases, *Python* [🔗](#)

Jan 2022

- Collaboratively built a web scraper, optimizing data extraction processes through automation to gather training and testing data
- Fine-tuned two variations of the Multinomial Naive Bayes algorithm to achieve a 92% accuracy rate, demonstrating a proficiency in data analysis and co-authored a detailed paper summarizing the project's lifecycle, methodologies, and findings