

# Terrian Xiao

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## EDUCATION

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### University of Michigan, Ann Arbor MI

*Bachelor of Science in Engineering in Computer Science*

*Graduating April 2024*

GPA: 3.89/4.00

*Coursework:* Data Structures and Algorithms, Web Systems, Compiler Construction, Discrete Mathematics, Technical Communication, Codepath Software Engineering

## SKILLS

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*Languages:* C/C++, Python, Javascript

*Web:* React, HTML, CSS

*Tools:* Git, Jira, Figma, Adobe Illustrator

## WORK EXPERIENCE

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### MathWorks, Natick MA

*Software Engineer Intern*

*May 2022 - August 2022*

- Engineered dead code elimination compiler optimization to improve performance of generated MATLAB and Simulink code using C++
- Qualified compiler transform robustness and speed by conducting 20,000+ unit, integration, and system tests using automated testing frameworks
- Developed 85+ unit tests following test driven development practices to ensure code functionality
- Communicated progress in biweekly meetings in an agile software development environment methodology to align and review project updates

### Graphic Design

*Digital Artwork Freelancer*

*July 2016 - August 2022*

- Designed and distributed 30+ custom decks of playing cards utilizing Adobe Illustrator
- Produced content for 50+ Asian Intervarsity members as a Graphics Team Member to communicate events through social platforms
- Negotiated contracts with clients to create illustrations, logos, posters utilizing Adobe Illustrator

## PROJECTS

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### Technical Course Projects

*Log Entries Manager*

*October 2021 - November 2021*

- Created log management system utilizing hash maps to perform sorting, appending, deleting, searching on log entries using object oriented programming in C++
- Implemented keyword search feature to efficiently filter entries by category and search words using hash map
- Designed custom functors to manage entries of log objects using Standard Template Library functions
- Utilized test driven development and Makefiles to automate testing and running software

*Air Quality Monitor*

*January 2021 - April 2021*

- Collaborated with engineering team of 6 to prototype and develop 5 level air quality monitor using C++ and Arduino components
- Communicated progress and design updates in weekly presentations to peers and supervisors

### Front-end Development

*Portfolio Website*

*November 2021 - July 2022*

- Created 4 page responsive personal portfolio website with mobile friendly design using React, HTML, CSS
- Constructed wireframes and mockups of interfaces to scope and design user interfaces using Figma
- Developed 10 reusable components to streamline development process using React
- Enhanced performance, accessibility, best practices, and search engine optimization to achieve 90-100 on Google Lighthouse benchmark tests