Terrian Xiao
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EDUCATION

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, Computer Organization, Discrete Mathematics, Technical Communication, Codepath Software Engineering

SKILLS

Proficient: C/C++, HTML, Affinity Designer
Competent: React, CSS, JavaScript, Java, Git
Capable: Python, MATLAB, Adobe Illustrator

WORK EXPERIENCE

MathWorks, Natick MA

EDG Software Engineering Intern   *May 2022 - August 2022*

- Implemented compiler optimizations to improve runtime performance for MATLAB and Simulink code generation by using C++
- Designed custom unit tests to follow test driven development practices and ensure program effectiveness
- Conducted unit, integration, and system tests to validate compiler transform robustness and performance
- Communicated progress in biweekly team meetings using AGILE methodology to align and review project updates

Graphic Design

Digital Artwork Freelancer   *July 2016 - Present*

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

PROJECTS

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 STL 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

Independent Front-end Development

Personal Website   *November 2021 - July 2022*

- Created multi-page responsive personal portfolio website with mobile friendly design using React, HTML, CSS
- Constructed wireframes and mockups of interfaces to scope and design UI / UX using Affinity Designer
- Enhanced performance for 90+ Google Lighthouse audit and 100 for accessibility, best practices, and SEO