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, Compiler Construction, Codepath Software Engineering

SKILLS

Languages: C++, Python, Javascript, Rust
Web: React, HTML, CSS, Flask, SQL
Tools: Git, Jira, Figma, Adobe Illustrator

WORK EXPERIENCE

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++
- Qualifed 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 using Jira

Freelance
Graphic Designer   *July 2016 - August 2022*
- Illustrated, marketed, and distributed 30+ custom decks of playing cards utilizing Adobe Illustrator
- Negotiated contracts with clients to create illustrations, logos, posters, and graphics

PROJECTS

Technical Course Projects
Cobra Compiler   *September 2022 - October 2022*
- Designed compiler to generate x86 assembly from custom Cobra programming language using Rust
- Constructed compile time error functions to check for unbounded variables, duplicate bindings, and type errors
- Implemented expression evaluation algorithms featuring conditionals, scoping, variables, operations, and types

Serverside Instagram Clone   *September 2022*
- Created serverside dynamic instagram clone using Python Flask backend and SQL database to serve templated HTML login, feed, accounts, posts, and users pages
- Implemented interactive account creation, following, liking, and commenting features to enhance user experience
- Collaborated with software engineering team of 3 using Git version control

Air Quality Monitor   *March 2021*
- Coordinated with engineering team of 6 to prototype and develop 5 level air quality monitor using C++ and hardware 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
- Enhanced performance, accessibility, best practices, and search engine optimization to achieve 90-100 on Google Lighthouse benchmark tests