

# 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, Computer Organization

## 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++
- 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 agile software development environment 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

Fullstack Instagram Clone

September 2022 - October 2022

- Created fullstack Instagram application using React front end, Python Flask backend, and SQL database to serve and render login, feed, accounts, posts, and users pages
- Built client side dynamic pages using REST API and asynchronous programming to manage requests using HTTP
- Implemented interactive account, posting, liking, and commenting features to enhance user experience
- Collaborated with software engineering team of 3 using Git version control

Cobra Compiler

September 2022 - October 2022

- Designed compiler to generate x64 assembly from functional like programming language using Rust
- Constructed compile and run time error checks for unbounded variables, duplicate bindings, and type mismatches
- Implemented expression evaluation algorithms featuring conditionals, scoping, variables, binary operations, and types

### 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