

Jaime Xu

xu1545@purdue.edu | github.com/jaimexu8 | jaimexu.dev

EDUCATION

Purdue University

Bachelor of Science in Computer Science

Expected Dec. 2026

West Lafayette, IN

EXPERIENCE

Tenon

May 2025 – Aug. 2025

Software Engineer Intern

Indianapolis, IN

- Architected a customizable form SDK integration in JavaScript, implementing role-based access control.
- Enhanced global accessibility across 90+ custom ServiceNow components by integrating multilingual support.
- Collaborated within an Agile/Scrum development environment, participating in daily stand-ups and code reviews.

Fundwrx

Feb. 2024 – Aug. 2024

Software Engineer Intern

Philadelphia, PA

- Deployed 12 client-facing REST APIs using TypeScript and PostgreSQL for event management software.
- Facilitated management of 40+ events and 700+ service hours by optimizing backend data aggregation.
- Increased event signup rates by 25% by implementing a user interest tracking feature with React and Redux.

Hack the Future

Sep. 2023 – May 2024

Software Developer

West Lafayette, IN

- Developed an administrative dashboard to automate data aggregation, eliminating 30+ hours of monthly work.
- Engineered a signup form using React, Tailwind CSS, and MUI, processing 2,100+ user registrations.
- Implemented session-based user authentication and authorization to control access to administrative functionalities.

PROJECTS

Shiba Type | React, Node.js, Express.js, MongoDB, Firebase, Docker

- Developed a full-stack typing test web application with real-time WPM/accuracy tracking, user authentication, leaderboard rankings, and a gamified reward system with unlockable themes.
- Containerized the application using Docker with multi-stage builds, orchestrating frontend and backend services and optimizing production images to enable consistent local development environments with health checks.
- Deployed a serverless backend on Vercel, implementing request validation middleware for database operations.
- Implemented a CI/CD pipeline with GitHub Actions for automated linting and Jest integration testing.

Boiler Dining | React Native, Node.js, Express.js, MongoDB

- Built a React Native mobile app to help Purdue students make informed dining decisions, providing real-time occupancy levels, estimated wait times, and daily menus for all campus dining halls.
- Integrated an interactive map with travel-time calculations using Mapbox and Google Maps APIs.
- Applied data analysis to user-generated data to generate predictive insights and occupancy patterns.

Linux Shell | C++, Bash

- Engineered a Unix shell with a parser and executor using Flex and Bison to execute complex command sequences.
- Implemented I/O redirection, background process management, subshell execution, and signal handling routines.
- Utilized Unix system calls to implement shell built-in functions and directory-aware wildcard expansion.
- Orchestrated inter-process communication for piped commands using Unix pipes and file descriptor manipulation.

C Compiler | C, Assembly

- Developed a compiler translating a subset of C into executable x86-64 assembly code using bottom-up parsing.
- Implemented code generation logic to manage stack frame allocation, register spilling, and local variable scoping.
- Engineered support for recursive functions, complex arithmetic expressions, and control flow (if-else, while loops).
- Integrated Flex and Bison to generate an abstract syntax tree for semantic analysis and error handling.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, Python, C/C++, SQL, HTML/CSS, Swift, Bash, Assembly

Frameworks/Tools: React, React Native, Next.js, Node.js, Express.js, Redux, AWS, Docker

Databases: PostgreSQL, MongoDB, Redis, Firebase