

# ETHAN VASQUEZ

480-717-7795 | [ethan@ethan-vasquez.com](mailto:ethan@ethan-vasquez.com) | [in/ethan-vasquez-se/](https://in/ethan-vasquez-se/) | [github.com/egvsauce](https://github.com/egvsauce) | [Portfolio](#)

## EDUCATION

### Bachelor of Science in Computer Science (Software Engineering)

*Arizona State University*

May 2026

Tempe, AZ

## TECHNICAL SKILLS

**Languages:** C++, C, Java, C #, Python, TypeScript, HTML, CSS, PostgreSQL, JavaFX

**Frameworks:** React, React Native, .NET Core, Node.js, Next.js, Flask, JUnit

**Developer Technologies:** Docker, Supabase, Git, VS Code, Visual Studio, IntelliJ, AWS Cloud

**Skills:** Data Structures & Algorithms, Object-Oriented Programming, Full Stack Development, Database Implementation, Software Architecture, Software Design

## PROJECTS

### Capstone Project — Web RISC-V Emulator

Aug. 2025 – Present

*Arizona State University Capstone Project*

Tempe, AZ

- Built a browser-native RV32I emulator with deterministic execution using Python and React.
- Developed a debugger with run/step controls, breakpoints, register inspection, and memory visualization.
- Implemented virtual I/O components (LEDs, switches, 7-segment display) that change based on input
- Contributed to Canvas LTI autograder integration and CI/CD workflows using Node/Express, Docker, and GitHub Actions.

### Web-Based Digital Audio Workstation

Oct. 2025 – Present

*Personal Project*

Phoenix, AZ

- Designed and built a browser-based digital audio workstation (DAW) with a multi-track arrangement view and real-time audio playback.
- Implemented drag-and-drop tracks supporting both preloaded audio samples and simulated MIDI clips with custom drum pattern creation.
- Developed a popup MIDI drum editor that allows users to generate beats and insert them as clip objects on the timeline.
- Integrated BPM control, play/pause functionality, and session saving to enable complete song creation in the browser.

### Intelligent Recipe Recommendation Platform — PennyPantry

Oct 2025 – Present

*Personal Project*

Phoenix, AZ

- Built a ASP.NET Core web app that dynamically generates meal options by analyzing ingredient lists and matching them against a catalog of 5000+ recipes in PostgreSQL
- Designed RESTful APIs for querying recipes, ingredients, and nutrition
- Achieved 85% unit test coverage, reducing runtime errors by 30%, ensuring safety and reliability
- Employed app features with eco-friendly, budget-friendly cooking habits, promoting environmental sustainability

### Client Management System

June 2024 – Aug. 2024

*HD Brow & SkinRx - Software Developer*

Gilbert, AZ

- Delivered a JavaFX application with a layered MVC architecture and a PostgreSQL backend, allowing for scalable customer data management
- Designed and integrated a dynamic search engine supporting real-time queries and modifications by SQL superkeys
- Implemented secure authentication to mitigate risks of data leaks and to ensure protection of the client's data
- Built with CRUD operations and GUI integrations for efficient, user-friendly workflows

## CERTIFICATIONS

### Oracle Cloud Infrastructure AI Foundations Associate

Oct. 2025

*Oracle*

### Cybersecurity Fundamentals

Nov. 2025

*IBM SkillsBuild*