

**Michael Thompson** | thompsonj michael04@gmail.com | [GitHub](#) | [LinkedIn](#) | [Portfolio](#)

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Computer Science student at San Francisco State University with hands-on experience in full-stack web development, systems programming, and game development. Built projects ranging from a Unix-style file system in C to an AR wearable assistant and a full-stack tutoring platform. Strong foundation in data structures, operating systems, and software engineering.

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## EDUCATION

**San Francisco State University** (2022-Current)

Bachelor of Science in Computer Science (Expected graduation: Spring 2026)

Current GPA: 3.96/4.0

## EXPERIENCE

**Tutor/Discussion Leader** - CSC 215: Intro to Programming | SFSU (Fall 2025 - Current)

- Led weekly seminar sessions reinforcing programming fundamentals in Java and problem-solving strategies.
- Provided one-on-one tutoring, debugging guidance, and exam preparation support

## PROJECTS

**OmniScope - AR Wearable AI Assistant** (Swift, Python, Flask)

- Developed an integrated augmented reality system for Xreal Air 2 Pro smart glasses
- Built an iOS companion app (Swift, MapKit, CoreLocation) connected to a Raspberry Pi backend (Flask, Picamera2, Anthropic API)
- Integrated AI-powered scene analysis using Anthropic Claude API and real-time weather, AQI, and navigation data
- Rendered dynamic AR overlays in real time using Pygame

**Unix-Style File System** (C, Operating Systems)

- Implemented a Unix-like file system from scratch in C on a simulated block device
- Supported hierarchical directories, persistent storage, free-space management, and buffered file I/O
- Built a custom shell with commands such as ls, cp, mv, and mkdir
- Applied low-level systems concepts including metadata management and path resolution

**EduGator Tutoring – Full-Stack Web Application** (HTML/CSS, JavaScript, MySQL)

- Built a full-stack tutoring platform enabling students to search for tutors, request sessions, and manage appointments
- Designed and implemented a relational MySQL database with normalized schemas
- Developed backend REST APIs and integrated frontend UI for end-to-end functionality

**Game Development - IsaacLite** (Java, LibGDX)

- Engineered a 2D roguelike game inspired by The Binding of Isaac using Java and LibGDX from scratch
- Implemented player movement, directional shooting, enemy AI, collision detection, and bomb mechanics
- Designed a procedural dungeon generation system for replayable level layouts.

## TECHNICAL SKILLS

**Languages:** Java, JavaScript, C, C++, HTML, Python, Swift, SQL

**Frameworks:** Node.js, Express, Flask, SwiftUI, LibGDX

**Databases:** MySQL

**Tools:** Git, GitHub, MySQL Workbench, Gradle, VS Code, IntelliJ, Raspberry Pi