

# ANDREW VU

Software Engineer

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## SUMMARY

Computer Science graduate (Oregon State University, Cum Laude) with a Cybersecurity Certificate and full-stack experience across a startup, two internships, and freelance work. Builds secure, well-structured mobile, web, and backend systems with a security-first mindset in Python and TypeScript. Former NCAA Division I tennis player.

## EDUCATION

### Oregon State University — Corvallis, OR

09/2022 – 06/2026

B.S. in Computer Science | GPA: 3.51/4.0 | Cum Laude | Dean's List | Cybersecurity Certificate (2026)

**Relevant Coursework:** Data Structures & Algorithms, Analysis of Algorithms, Operating Systems, Parallel Programming, Computer Networks, Database Systems, Network Security, Applied Cryptography

## EXPERIENCE

### StrokeVision — Co-Founder & Lead Engineer (Early-Stage Startup)

01/2026 – Present

React Native (Expo), TypeScript, Python, FastAPI, PostgreSQL, Computer Vision, AWS S3

- Building an AI tennis-coaching iOS app (React Native/Expo, TypeScript) backed by a Python/FastAPI service that analyzes a recorded swing and returns specific, actionable feedback; TestFlight beta in progress.
- Designed an async video-processing pipeline that runs computer-vision pose estimation on each swing in a background worker pool (AWS S3 storage), keeping the app responsive during analysis.
- Architected for safe, honest scope: flags low-confidence or poor-angle clips instead of guessing, scopes each user's videos to that user, and keeps coaching content reviewed by qualified coaches.

### Software Engineer (Freelance) — Gresham United Methodist Church, Gresham, OR

09/2025 – 12/2025

- Led a full website migration from Wix to Framer, planning the domain transfer, DNS configuration, and email continuity to minimize downtime during cutover.
- Built reusable, interactive UI components with custom HTML, CSS, and JavaScript, and created data-driven page templates (events, leadership, programs) to support ongoing content management.
- Integrated PayPal payment workflows and improved mobile responsiveness, page performance, and ADA-aware accessibility across the site.

### Software Engineer Intern — Wholistic Peace Institute, Lake Oswego, OR

06/2025 – 08/2025

- Sole developer responsible for designing, building, and deploying the organization's website end to end on Bluehost, including server configuration, performance tuning, and reliability.
- Built an API-driven digital-library checkout system using the Google Books API, with custom JavaScript and AJAX-style interactions for the organization's book catalog.
- Implemented PayPal and Stripe payment integrations and a content-management workflow using WordPress (Elementor Pro), HTML5, CSS3, JavaScript, and PHP.

## PROJECTS

### AI-Powered Home Assistant Integration — Senior Capstone | Python, OpenAI API, REST APIs, AsyncIO

- Built an AI-driven Home Assistant integration that interprets natural-language requests and triggers smart-home actions through REST APIs.
- Designed an asynchronous architecture with AsyncIO for concurrent request handling, with a secure execution layer to validate commands before they run.

### SponsorHub — Sponsorship Management Platform | Next.js, TypeScript, PostgreSQL, Prisma

- Built a full-stack sponsorship-management platform with role-based access control (RBAC) for authentication and authorization; modeled relational data in PostgreSQL via Prisma and offloaded long-running work to background jobs with BullMQ and Redis.

## TECHNICAL SKILLS

**Languages:** Python, Java, JavaScript, TypeScript, C/C++, SQL

**Frameworks:** React, Next.js, React Native (Expo), Node.js, FastAPI, Angular, Tailwind CSS

**Backend & Cloud:** REST APIs, PostgreSQL, Prisma, Redis, AWS, GCP, Docker, Kubernetes, CI/CD

**AI/ML:** Artificial Intelligence (AI), Machine Learning, Computer Vision, Pose Estimation, NLP, LLMs, Data Mining

**Security:** Network Security, Threat Modeling, Vulnerability Assessment, Digital Forensics & Incident Response, Applied Cryptography, IAM, RBAC, HMAC Authentication, Risk Assessment & Compliance, Security Monitoring, NIST CSF, ISO 27001, Wireshark

## LEADERSHIP & ATHLETICS

- NCAA Division I Men's Tennis, Portland State University — multiple USTA Junior Championship titles. Student Ambassador, Oregon State University.