

Elijah Tabachnik

elijah.tabachnik@gmail.com | 510-953-8646 | elijahtab.github.io | https://github.com/Elijahtab | Irvine, CA

Skills

Languages: Python, C#, C++, Java, CSS, SQL

Web: React, Flask, REST APIs, GitHub Actions, Jekyll

Cloud & Tools: Git, Yolo, Azure, AWS, Docker, Linux, Unity, Godot,

AI/ML: OpenAI API, OpenCV, YOLO, ElevenLabs, HuggingFace, PyTorch

Experience

Software Engineer Intern

Jun. 2025 - Jul. 2025

Mobile Tech 24

Irvine, CA

- Designed and deployed an internal AI automation tool using Python and REST APIs, reducing average issue resolution time by 30% for IT specialists.
- Enhanced the company's user-facing web platform using React, improving usability and increasing engagement from thousands of users.
- Built and deployed an AI-driven workflow automation system that boosted productivity and became the primary tool for over 50% of staff.

Software Engineer Intern

Jun. 2024 - Jan. 2025

Leucadia Therapeutics

Riverside, CA

- Developed a Unity-based conversational AI avatar with real-time voice interaction, lip-sync rendering, and LLaMA/OpenAI API integration for immersive client testing, allowing for more than two thousand clients to be tested.
- Designed and deployed a HIPAA-compliant, scalable cloud architecture on Azure and AWS (Docker), including Flask REST APIs and SQL backends for secure health data management.
- Created a real-time researcher UI enabling interactive avatar demos and large-scale client testing.

Game Developer Intern

Oct. 2023 - Jan. 2024

Blue Rondo Games

Irvine, CA

- Developed core rhythm gameplay mechanics in Godot using GDScript, including beat detection and timing-based interactions.
- Collaborated on level design and user feedback tuning to balance challenge and player engagement.

Projects

Agentic LLM Drone | *OpenCV, Yolo, OpenAI API, Whisper, Python*

Jun. 2025 - Current

- Built an autonomous drone system using an OpenAI to interpret natural language commands, plan flight paths, and execute maneuvers in real time.
- Integrated YOLOv8 and OpenCV for real-time object detection, following, and car-type classification (SUV, sedan, pickup) with a custom-labeled dataset.
- Created a Python voice-to-command pipeline using OpenAI's API for speech parsing and real-time drone control.

Procedural Terrain Generator | *Unity, C#*

Jan. 2024 - Current

- Built a Unity procedural generation system using layered Perlin noise for terrain, textures, and biome-like foliage clustering.
- Designed scalable foliage rendering for 15K+ trees with minimal lag via Unity LOD and optimized placement logic.
- Created modular controls for terrain scale, forest density, chunk size, and biome zoning to speed game map prototyping.

Image Classification: Fashion-MNIST Benchmark | *PyTorch, Python*

May 2025

- Implemented and evaluated kNN, logistic regression, decision trees, and a feedforward neural network using PyTorch and scikit-learn.
- Tuned architecture and learning rates via grid search; FFN achieved 88.6% test accuracy.

AI-Entrepreneur Competition Finalist | *Elevenlabs, OpenAI API, Python*

Jan. 2024

- Developed and pitched an innovative educational tool leveraging AI-generated avatars of historical figures to enhance student engagement and provide immersive, conversational learning experiences.
- Integrated OpenAI's GPT for dynamic dialogue generation, ElevenLabs speech synthesis for realistic voice emulation, and deepfake technology for visual realism.

Education

University of California, Irvine

Expected Dec. 2027

B.S. in Computer Science | GPA: 3.55

Relevant Coursework: Algorithms & Data Structures, Operating Systems, Machine Learning, Artificial Intelligence, Probabilistic Programming, Software Engineering, Database Systems