

# Joshua Zhang

[jzhang0224@gmail.com](mailto:jzhang0224@gmail.com) | [joshuazhang.vercel.app](https://joshuazhang.vercel.app) | [linkedin.com/in/joshzh](https://linkedin.com/in/joshzh) | [github.com/Teddygat0r](https://github.com/Teddygat0r)

## EDUCATION

### University of Washington

GPA: 3.93, Bachelor of Science in Computer Science

Expected Graduation: June 2027

Seattle, WA

**Relevant Coursework:** Distributed Systems, Data Structures & Algorithms, Systems Programming

## EXPERIENCE

### Stripe

June 2025 - Current

Software Engineering Intern

Seattle, WA

- Developed a **SOX control** in **Python** by enriching existing tax data exports stored in **AWS S3** with tax rate and description information, surfacing existing inconsistencies, which improved data accuracy and compliance.
- Led complex database migrations, transitioning tax configuration schemas from broad product-level mappings to granular associations. This reduced data inconsistencies by 99% and ensured alignment up-to-date tax rates.
- Pioneered the development of an agentic bot for self-service tax data analysis. Implemented using Agentic RAG, reducing tax support ticket volume by 85%.

### Amazon

Jan 2025 - June 2025

Software Engineering Intern

Seattle, WA

- Integrating legacy **ASP.NET** (C#) code with modern Amazon books frameworks.
- Implemented table pagination and server side database processing and optimized **SQL** queries to achieve a 98% increase in speed in a Brilliance Publishing internal tool.

### Art of Problem Solving

June 2024 - Sept 2024

Software Engineering Intern

San Diego, CA

- Worked in an **Agile** team environment to develop an online placement exam using **React**, allowing students to qualify for AoPS Academy courses from home, used by over **20,000** students across 12 campuses.
- Constructed a RESTFUL API to serve as middleware using **Node.JS** to integrate the frontend site to an outdated **PHP** server and **PostgreSQL** databases.

### Advanced Robotics at UW

Sept 2023 - Sept 2024

Controls Team Software Developer

Seattle, WA

- Developed a Python-OpenCV system for real-time red square detection, 3D pose estimation, and serial communication of target orientation data.
- Maintained Taproot, an open-source embedded systems framework written in **C++** for Robomaster robots.

### Department of Homeland Security

June 2023 - Aug 2023

Software Engineering Intern

Washington D.C.

- Used **Python** to develop a system enabling users to submit lengthy documents to a locally hosted large language model (LLM) and query it for relevant information.
- Improved the accuracy and reduced hallucinations of LLMs in answering prompts by **30%** integrating ChromaDB Vector Database to the LLM through **LangChain**.
- Modeled the LLM API after an OpenAI API server, allowing it to communicate with the LangChain tool.

## PROJECTS

### Spotify Recommender | *Python, Flask, Scikit-learn, NextJS, React, Typescript, Tailwind*

- Used Manhattan distance formulas to generate vector embeddings for 12,000 songs in **Python**.
- Built a frontend using **React**, giving users a graphical visualization of songs and their recommendations.

### WildEye AI | *Flask, Tensorflow, NextJS, React, Typescript, Tailwind, Python*

- Built a wildlife-spotting camera, powered by an **NVIDIA Jetson Nano**, that can be tucked into your backyard to automatically snap pictures and recognize animals that wander by.
- Trained a model using **Tensorflow**, identifying 90 different animal species with an 86% test accuracy.

## TECHNICAL SKILLS

**Languages:** C++, C#, Typescript, Javascript, NodeJS, Python, Java, SQL, HTML/CSS, Bash

**Frameworks:** React, PyTorch, Spring, Express, ASP.NET

**Developer Tools:** Git, Microsoft Azure, AWS, Docker, Kubernetes

**Libraries:** Pandas, NumPy, Matplotlib, Strapi, Storybook, Jest