# JEFFREY LEE

San Francisco Bay Area, CA

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### Education

### University of Washington

B.S. in Computer Science, GPA: 3.9/4.0

Seattle, WA

Expected: June 2027

• Related Coursework: Data Structures and Algorithms, Deep Learning, Intro to AI, Database Systems, Hardware/Software Interface, Discrete Math for CS, Web Programming

# Skills and Awards

Languages: Java, Python, Typescript, Javascript, C, SQL, HTML/CSS, MATLAB, R

Technologies: React, React Native, Node, Express, PostgreSQL, PyTorch, Git, MongoDB, Firebase, AWS, OpenAI

Awards: Annual Dean's List, California State Seal of Biliteracy for Chinese

# Experience

# Amazon | Python, AWS

June 2025 - Present

Software Development Engineer Intern

Sunnyvale, CA

- Developing automated scaling solutions on Scaling Planner team to optimize AWS resource allocation, while creating AI-powered assistant that enhanced service diagnosis workflows, achieving 50% adoption among service-owners
- Implemented Python Lambda orchestrator to power the AI assistant, implementing an RAG pipeline that synthesizes Scaling Planner documentation and operational data with Claude LLM, achieving 80% accuracy in contextual responses
- Designed data ingestion system to process and vectorize information from 7+ microservices, transforming CloudWatch logs and Andes table data into searchable knowledge base that supports real-time debugging assistance

# Apple | Python, PyTorch, Vision-Language Models

April 2025 – June 2025

ML Research Apprentice

Seattle, WA

- Researched vision-centric test-time scaling for VLMs in CSE 493 under Dr. Chun-Liang Li, using Visual Sketchpad-inspired augmentations (depth maps, segmentation masks, crops) to improve VLM performance by 1.37%
- Established experimental pipeline with LLaVA-OneVision and MMBench dataset to evaluate 3 augmentation strategies, revealing systematic augmentation degrades performance by 1.57% while guided selection maintains effectiveness
- Constructed hybrid multi-image processing system combining GPT-4o-mini planning with LLaVA-OneVision inference, establishing lightweight alternative to Visual Sketchpad methodology that reduces computational complexity

## Interactive Intelligence

Sept 2024 - Present

Co-Lecturer and Teaching Assistant

Seattle, WA

- Formulated 13 AI coding projects and assignments, ranging from neural networks, RL, to NLP for 100+ students
- Facilitated 2+ weekly office hours and personalized mentoring sessions contributing to a 95% overall satisfaction rating
- Led 5+ comprehensive lectures on cutting-edge AI concepts, creating 10+ interactive slide decks

#### Projects

Solace AI | React Native, TypeScript, OpenAI, AWS (EC2, RDS), PostgreSQL, Express, Firebase

March 2025

- Engineered and deployed an AI-powered journaling app on Apple App Store using React Native, TypeScript, and Firebase, creating a full-featured mental health solution with journal entry analysis and mood tracking capabilities
- Integrated OpenAI GPT-40 mini to develop a mental health chatbot, implementing custom prompt engineering techniques that improved response relevance by 35% in internal testing compared to baseline models
- Deployed Express/PostgreSQL backend on EC2/RDS with optimized API performance and comprehensive test coverage

## Advanced Image Classifier | Python, PyTorch

April 2024

- Designed and implemented a custom ResNet-style CNN with residual connections, data augmentation, and batch normalization to classify images from the CIFAR-10 dataset (60,000 images across 10 categories)
- Achieved 90% test accuracy in just 10 epochs through strategic architecture design and hyperparameter optimization

#### Activities and Leadership

#### Chinese Student Association

Sept 2023 - Present

President

- Led organizational management of 35+ officers across 4 committees, implementing streamlined communication systems while expanding organizational capacity through innovative recruitment strategies
- Executed flagship Lunar New Year celebration serving 300+ community members by raising 15,000\$, fostering collaborative culture that increased voluntary officer participation at events by 60%