

Alvin Le

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SECURITY CLEARANCE

Interim Secret Clearance (Active)

EDUCATION

Georgia Institute of Technology

M.S. in Computer Science; Specialization in Machine Learning; GPA: 4.00/4.00

Atlanta, GA

Expected December 2026

- **Relevant Coursework:** Machine Learning, Deep Learning, NLP, Agentic AI, Computer Networks, OS, Software Design, Data Structures & Algorithms, AI Ethics, Knowledge Based AI

University of California, Irvine

B.S. in Biological Sciences; Dean's Honor List (all quarters); GPA: 3.92/4.00

Irvine, CA

Sept. 2019 – June 2023

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript/TypeScript, Java, SystemVerilog, x86 Assembly

Frameworks & Tools: React, React Native, Next.js, Node.js, FastAPI, Supabase, gRPC, REST APIs, Git

ML / AI: PyTorch, scikit-learn, XGBoost, OpenCV, YOLOv8, Transformers, CNNs, GNNs, LLMs, RAG pipelines, LangChain, ChromaDB, Prompt Engineering, Tool-Calling Agents, NumPy, pandas

Certifications: NVIDIA DLI — Deep Learning, Diffusion Models, Anomaly Detection, RAG Agents with LLMs, Agentic AI Applications, Rapid LLM Development

PROFESSIONAL EXPERIENCE

STEM Intern

General Infomatics Inc. (TRMCI Program)

Summer 2026

Point Mugu, CA

- DoD-affiliated TRMCI Summer 2026 Internship Program supporting software test & evaluation efforts for defense systems.
- Will perform software testing and evaluation with AI/ML techniques, validating system behavior and contributing to quality assurance.

Biomedical Research Intern

UC Irvine — Alzheimer's Disease Lab

Aug. 2022 – Jun. 2023

Irvine, CA

- Automated ImageJ (Jython) image analysis scripts, improving pipeline throughput by 60%.
- Analyzed 1,000+ microscopy images across a 4-person team; designed experiments and presented quantitative findings on protein PGC1- α in transgenic mouse neurons.

PROJECTS

AI Shot Tracking App | Python, FastAPI, React Native, TypeScript, YOLOv8, Roboflow

- Built a full-stack mobile app with a React Native/TypeScript frontend and FastAPI backend, exposing APIs for real-time YOLOv8 inference on streamed video.
- Trained a custom YOLOv8 model achieving 94% ball and 92% rim detection accuracy.
- Engineered trajectory classification using polynomial regression and motion heuristics, achieving 80% shot outcome accuracy.

Distributed File System | C++, gRPC, Protocol Buffers

- Designed and implemented a client-server file system with gRPC APIs supporting file upload/download, metadata synchronization, and consistency validation across concurrent clients.
- Engineered async write locks and caching mechanisms for fault tolerance; implemented conflict resolution for concurrent writes.

NBA Player Prop Prediction System | Python, XGBoost, scikit-learn, NBA API, The Odds API

- Built an XGBoost-based prediction system trained on 160K+ samples using NBA statistics, historical odds, and injury data.
- Achieved 54% test accuracy; identified and fixed data leakage via temporal filtering and feature corrections.
- Engineered ML pipeline with 50+ features including teammate impact, usage patterns, and automated ROI tracking.

Movie Recommendation System | Python, PyTorch, LightGCN, GNN

- Built a movie recommendation system using the MovieLens-32M dataset with 200K users and 55K movies.
- Developed a graph-based recommendation model using LightGCN to learn user preferences and recommend movies based on user interaction patterns.
- Improved recommendation accuracy and training performance, achieving a 4.5 \times improvement over a baseline recommendation approach.