

Asong Suh Jr

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EDUCATION

Texas A&M University

Bachelor of Science in Computer Science

College Station, TX

Aug. 2024 – May 2028

- **Relevant Coursework:** Foundations of AI/ML, Computer Systems, Computer Organization, Programming Languages, DSA, Discrete Mathematics, Linear Algebra, Statistics I & II, Calculus II & III, Physics I & II
- **Standardized Scores:** 1540 SAT, 1500 PSAT, National Merit Scholar, 4s and 5s on 17 AP Exams

EXPERIENCE

Research Engineer Intern, Healthcare

Sand Technologies

May 2026 – Aug. 2026

Kigali City, Rwanda

- Migrated a 3-stage CV pipeline (YOLOv5 detection, 72M-param multi-scale attention transformer, verdict CNN) from TensorFlow 1.x to PyTorch, matching published benchmarks at 0.998 AUC; fixed a Grad-CAM gradient bug corrupting 40% of interpretability outputs
- Owned model training and evaluation across 6 datasets and 4 annotation formats; diagnosed distribution shift dropping AUC to 0.40 on unseen capture hardware and designed replay-based fine-tuning recovering AUC to 0.93 without catastrophic forgetting
- Trained a second YOLOv8 detection pipeline from scratch on cloud GPUs, reaching ~100% sensitivity and 0.97 specificity on held-out data
- Shipped 12 offline-first Python/FastAPI microservices: event-sourced encrypted datastore, on-device Whisper STT, idempotent delivery, Ed25519-signed model distribution, and SHA-256 weight verification

Associate Software Developer Intern

Google

May 2025 – Aug. 2025

Sunnyvale, CA

- Built a high-throughput, low-latency ML analytics system enabling contextual API performance visibility across Google Cloud services
- Designed ML agents for anomaly detection, failure pattern recognition, and predictive diagnostics over large-scale behavioral telemetry, reducing downtime risk
- Built a dual-mode Retrieval-Augmented Generation (RAG) framework combining vectorized semantic search with historical data retrieval, cutting retrieval latency and cloud spend

PROJECTS

SafetAI | *Python, PyTorch, YOLOv5, ByteTrack, Kalman Filter, ESRGAN*

- Built multimodal real-time detection pipelines combining CNN-based acoustic classifiers and YOLOv5 visual models, achieving 93% gunshot classification accuracy (14K samples) and 97% firearm detection accuracy
- Implemented multi-camera tracking using ByteTrack + Kalman filtering to maintain perpetrator identity across views
- Engineered ESRGAN super-resolution enhancement improving surveillance clarity with 99% user-rated visual quality gains

Persistent Monocular 3D Mapping & Object Tracking System | *Python, PyTorch, Computer Vision, SLAM*

- Built real-time monocular 3D reconstruction converting RGB video into persistent scene representations via pose estimation and learned depth
- Added world-coordinate object tracking and spatial memory for relocalization, motion awareness, and cross-view identity consistency

RECOGNITIONS AND AFFILIATIONS

Congressional App Challenge Winner & US House Commendation: For AI work combating active shootings in the US

NSBE 25 Under 25: One of 25 Black STEM leaders globally recognized for impact and community leadership

Texas A&M Student Research Week: Top 3 in CS (89/100) at the country's largest student research fair, competing as an individual against lab-sponsored upperclassmen

NVIDIA Summer Bridge Program: Selected for summer training in AI, computing, and NVIDIA engineering practices

Y Combinator AI Startup School: Top 2500 CS students globally, frontier AI founder program

TECHNICAL SKILLS

Languages: Python, C++, SQL, MATLAB

ML & AI: PyTorch, TensorFlow, NumPy, Pandas, Computer Vision, Deep Learning, LLMs, RAG, Model Evaluation

Systems & Tools: Linux, Git, FastAPI, AWS, GCP, BigQuery, Distributed Systems, APIs, Agile