

Asong Suh Jr

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EDUCATION

Texas A&M University

Bachelor of Science in Computer Science

- **Relevant Coursework:** Statistics I & II, DSA, Discrete Mathematics, Calculus II & III, Linear Algebra, Physics I & II

College Station, TX

Aug. 2024 – May 2028

Conroe ISD Academy of Science and Technology

Advanced Math / Computer Science / Physics Track

- **Stats:** 4.78 GPA, 1540 SAT, 17 APs, 1500 PSAT (National Merit Scholar)

The Woodlands, TX

Aug. 2020 – May 2024

EXPERIENCE

Research Engineer Intern, Healthcare

Sand Technologies

- Building a smartphone-microscopy malaria screening assistant for SandHOS that flags positive fields of view, counts parasites, and routes images for technologist review as clinical decision-support, not autonomous diagnosis
- Adapted from a published proof-of-concept into a three-stage pipeline: YOLOv5 thin-blood-smear patch segmentation, a multi-scale attention classifier with Transformer context aligner for patch-level parasite ID, and a CNN over stitched heatmaps for image-level diagnosis with false positive suppression
- Concurrently building data warehouse and ingestion pipeline for The African Leadership University in Rwanda as a 20% project

May 2026 – Present

Kigali City, Rwanda

Associate Software Developer Intern

Google

- Built 12 ML-based pattern and anomaly detection algorithms and agents on Apigee API data, enabling granular and contextual API performance visibility
- Designed high throughput, low-latency inference and evaluation pipelines (BigQuery pulls, retrieval paths) and load-simulation tooling, increasing failure-mode coverage by 80%

May 2025 – Aug. 2025

Sunnyvale, CA

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*

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

Autonomous Quantitative Trading System | *Python, pandas, NumPy, Alpaca API*

- Built modular agents for scanning, signal generation, execution, and risk, integrated through Alpaca APIs with real-time monitoring using pandas/NumPy infrastructure
- Designed a rule-driven portfolio engine allocating capital between passive index holdings and automated strategies using volatility-scaled sizing, capped exposure, and centralized risk logic

RECOGNITIONS AND AFFILIATIONS

Texas A&M Student Research Week: Top 3 in CS category (89/100 final score) in the largest student research fair in the country. Competed as an individual against lab-sponsored upperclassmen research projects

US House of Representatives Commendation & Congressional App Challenge Winner: Received for work on using artificial intelligence to combat active shootings in the US

NSBE 25 Under 25: Selected as one of 25 black STEM leaders globally recognized for impact, innovation, and community leadership

Y Combinator AI Startup School (Attendee): Selected as a top 2500 CS student globally for a frontier AI founder program

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

TECHNICAL SKILLS

Languages & Tools: Python, C++, SQL, MATLAB, Linux, Git, Cloud (AWS/GCP), APIs

Libraries & Concepts: PyTorch, NumPy, Pandas, Algorithms, ML Ops, Agile

Interests: Amateur and Professional Boxing, Soccer, Religion & Philosophy, Weightlifting, Cooking, Track and Field, Video Games