Angela Magtoto

(619) 598-9678 angelamagtoto17@gmail.com linkedin.com/in/angelamagtoto

Education

UCLA Henry Samueli School of Engineering and Applied Science **May 2028**
Electrical Engineering B.S. *Los Angeles, CA*

Work Experience

Amazon Web Services (AWS AML Science Team) **June 2025 – Sept 2025**
Software Development Engineering Intern *New York, NY*

- Developed a **multi-agent system** using Agentic protocols and AWS frameworks **eliminating 100% of manual customer feedback analysis**, and saving **30+ hours weekly** spent on repetitive document review
- Expanded my departments **integration of Agentic AI** by authoring an article titled "Fundamentals of AI Agents and Building a Multi Agent System in 4 Steps," which was featured in the AWS AIO Launch
- Addressed security concerns by building a **custom MCP server** with OAuth per-user isolation, ensuring secure 3rd party API integration with new and existing systems using FastMCP SDK
- Tackled PM scalability issues with Lambda-triggered RAG pipeline processing **1100+ customer documents daily**, delivering **90% faster insight extraction** from previously inaccessible unstructured data
- Eased deployment friction by building a infrastructure with AWS ECS Docker, that enabled **zero-downtime releases** and **75% faster provisioning** for rapid iteration cycles

UCLA Mobility Lab **Oct 2025 – Present**
AI Researcher *Los Angeles, CA*

- Investigating multi-agent cooperative perception systems for autonomous vehicles, using V2X communication to overcome sensor limitations and gain deeper insights into large-scale mobility patterns

Projects

Autonomous Micromouse Maze Solver | IEEE @ UCLA **C++ | Embedded Systems | Algorithm Design**

* Implemented **custom pathfinding algorithms**, achieving **sub-30 second** maze completion
* Architected **full-stack hardware solution** from PCB design to C++ script, integrating microcontroller with sensors and motor control for autonomous navigation

AWS DeepRacer **Python | PyTorch | Reinforcement Learning**

* Developed **neural networks** using PyTorch for computer vision-based track recognition and steering prediction
* Fine-tuned **reward function** to improve lap consistency by **75%** and achieving competitive racing performance

Full-Stack Media Platform **React | Node.js | PostgreSQL**

* Built and deployed a **full-stack web application** for social media community engagement reaching 5M+ page views
* Implemented responsive React UI/UX to attract 5+ sponsorships

Lightweight Combat Robot **Python | Systems Integration | CAD**

* Designed **spinner combat robot** using SolidWorks and FEA simulation, optimizing structural integrity
* Created embedded control system with **Arduino microcontroller** for precise maneuvering
* Coded **adaptive PID algorithms** which maintained orientation stability during high-speed weapon operation

Leadership

Hackathon Education | *Spark & Hack the Wave* **2022 – 2025**

* Hosted two hackathons to expand gender diversity and accessibility in technology, featured in Forbes
* Organized **workshops** for **90+ students**, mentoring participants on NLP fundamentals and full-stack web development

Technical Skills

Languages: Python, C++, SQL, JavaScript, Java, TypeScript

AI/ML Frameworks: TensorFlow, PyTorch, AWS Bedrock, StrandsAgents, Bedrock AgentCore, LangGraph, Neo4j

Cloud & Tools: RESTful APIs, AWS (Lambda, API Gateway, S3, EC2, CloudWatch), Docker, Git, Jupyter, VS Code

Topics: NLP, Reinforcement Learning, RAG, Agentic AI Workflows, A2A, MCP, Prompt Engineering