GAREGIN MAZMANYAN

424-335-7478 | gmazmanyan@arizona.edu | LinkedIn | GitHub | gareginmazmanyan.com | Tucson, 85716

EDUCATION

University of Arizona, Tucson, AZ
Master's in Computer Science *08/2024 - 05/2026*
Bachelor's in Computer Science, Minor in SIE *08/2022 - 05/2025*

SKILLS

Python | C/C++ | scikit-learn | TensorFlow | PyTorch | NumPy | Reinforcement Learning | Deep Learning | NLP | Computer Vision | OpenCV | ROS2 | MAVROS | Gazebo | RViz | TF2 | SLAM | Git | Linux | Docker | AWS | CI/CD | Vicon

ACHIEVEMENTS

- Won the Amazon Tech Runner-Up Award (AWS Challenge) in the **Hack Arizona** Hackathon (over 150 teams)
- Advanced to Round 3 of **TCS CodeVita** Hackathon (over 444,000 participants)
- Secured $7,000 in grants and participated in the **NSF I-Corps National** and Forge Startup Residency programs

PROFESSIONAL EXPERIENCE

AEYESAFE - Seattle, WA
Junior Software Engineer Intern (Remote) *10/2024 - 01/2025*

- Deployed scalable AWS infrastructure with ECS, Fargate, SQS, and DynamoDB, cutting compute costs via autoscaling
- Reduced deployment time by 50% with automated CI/CD using Docker and YAML
- Built secure serverless APIs with AWS Lambda and API Gateway, using JWT auth for real-time vision analytics

University of Arizona - Computer Science Department - Tucson, AZ
Teaching Assistant & Course Coordinator *08/2023 - 12/2024*

- Built a real-time coding platform for CSC110 students, now integrated into the curriculum - csc110-coding-platform.com
- Coordinated curriculum for 300+ students to ensure consistent instruction across sections
- Led lab sessions with real-world coding challenges to reinforce course concepts

RESEARCH

University of Arizona - Engineering Robotics Lab - *Tucson, AZ*
Research Assistant, Crazyswarm Project *02/2025 - Present*

- Programmed autonomous control for 10+ Crazyflie drones using ROS2 and Crazyswarm2 for synchronized flight
- Built swarm algorithms and mission planning logic for real-time multi-agent coordination
- Simulated trajectories in Gazebo and visualized paths in RViz

PROJECTS

D2L Plus AI Assistant
Flutter, AWS Bedrock, AWS Cognito, Lambda, DynamoDB, LangChain, REST APIs

- Built a mobile AI assistant using AWS Bedrock and LangChain to provide personalized support in the D2L learning system through secure, real-time context-aware data pipelines

AI Glucose
Python, TensorFlow, scikit-learn, EfficientNet, OCR, LSTM

- Created a deep learning app predicting blood sugar spikes from meal images using CNN and LSTM models, reducing prediction error by 20% to support diabetic dietary choices

Named Entity Recognition System with Multi-Architecture Approach
Python, PyTorch, Transformers, HMM, LSTM, BERT, NLP

- Developed a modular NER system using LSTM, BERT, and HMM, with support for discontinuous entities, efficient sequence handling, and end-to-end pipelines, achieving 15% improvement in cross-domain performance