

# ARJAN GUPTA

Kansas City, MO · arjangupta95@gmail.com · 661-699-3095 · github.com/arjangupta

## TECHNICAL SKILLS

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Programming Languages: C, C++, Python, JavaScript, URDF, Bash, MATLAB  
Robotics/AI Frameworks: ROS2, Gazebo, OpenCV, PyTorch, YOLOv7  
Protocols: PWM, UART, SPI, I2C, MQTT, HTTPS  
Broad skills: Deep reinforcement learning, computer vision, embedded systems, sensors

## EDUCATION

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### Worcester Polytechnic Institute

Master of Science in Robotics Engineering, GPA: 4.00/4.00  
Autonomous Vehicles Specialization

August 2022 — present

### University of Kansas

Bachelor of Science in Computer Engineering, Mathematics Minor

August 2013 — May 2017

## WORK EXPERIENCE

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### Ainstein AI

Senior Embedded Software Engineer

Lawrence, KS (Hybrid)

November 2023 — present

- Developing radar sensing systems for golf shot tracking

### Lev Technologies

Co-Founder & Engineering Expert

Remote

June 2023 — present

- Helped launch the usage of custom-trained YOLOv7 object detection model to help daycare workers
- Designing the edge strategy to deploy the system on a Jetson Nano for real-time inference
- Collaborating with other founders to develop the technical road-map

### Lindsay Corporation

Embedded Software Engineer II

Olathe, KS (Hybrid)

December 2021 — November 2023

- Enhanced the firmware on the Smart Pivot to use GPS-path planning over MQTT
- Mentored entry level engineers and interns, guided them with debugging and profiling tools
- Served as a technical lead on Smart Pivot main UI panel, responsible for the entire software stack
- Developed wrappers for drivers to support on-board chips and sensors
- Completed a hardware & firmware replacement of Sub-GHz mesh network on a legacy product

### AGI SureTrack

Embedded Software Engineer I & II

Lenexa, KS (Hybrid)

October 2019 — December 2021

- Helped maintain LiDAR product with a 3 DoF robotic arm for grain inventory management
- Coordinated engineering work as a team lead, guided productivity and helped meet milestones
- Owned the product development and commercial launch of a new IoT Gateway product
- Designed and implemented backend web-services for automated firmware updates

### ZOLOZ

Software Engineer

Kansas City, MO (On-site)

June 2017 — October 2019

- Developed and maintained biometric matching systems for a 2 DoF camera (pan-tilt)
- Implemented and optimized C++ image scaling and compression algorithms
- Supported the R&D department to fine-tune several computer vision models for object detection

## PROJECTS

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- **Autonomous Drone Simulation** — replicating a state-of-the-art research paper that uses deep reinforcement learning to train a drone to fly through a room and avoid obstacles
- **6 DoF Robotic Arm** — assembled arm, wrote its controller and kinematics in Python, and moved it using servos and a Raspberry Pi. Designing a computer-vision based localization system for it

## COURSE CERTIFICATES

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### Coursera

Neural Networks and Deep Learning  
Machine Learning

Issued May 2023 | Credential ID R6Q353L77JC6  
Issued Aug 2022 | Credential ID KKFMWZ7WZCF7