

ARJAN GUPTA

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TECHNICAL SKILLS

Programming: C, C++, Python, JavaScript, URDF, Bash, MATLAB
Robotics: ROS2, Gazebo, Isaac Gym, robot control theory, kinematics, dynamics, path planning
AI Frameworks: PyTorch, OpenCV, YOLOv7, TensorFlow
Protocols: PWM, UART, SPI, I2C, MQTT, HTTPS
Broad skills: Embedded systems, sensors, computer vision, deep reinforcement learning

EDUCATION

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

Vermeer Corporation

Autonomy Engineer II

Pella, IA (Remote)

February 2024 — present

- Owning and designing the localization and navigation autonomy module (GNSS with some perception)
- Developed industry-standard, high-level system engineering requirements for autonomy modules
- Mentored interns and reviewed C++ code used to develop a ROS2 simulation stack for the A2A team
- Facilitated technical proposals with GNSS vendors that provide RTK correction and J1939 messaging
- Owning the autonomy safety module within the A2A team, abiding by ISO standards 17757 and 18497

Ainstein AI

Senior Embedded Software Engineer

Lawrence, KS (Hybrid)

November 2023 — February 2024

- Improved radar sensing systems for golf shot tracking system
- Implemented sensor fusion algorithms for radar and camera data

Lev Technologies

Co-Founder & Engineering Expert

Remote

June 2023 — present

- Directed technical troubleshooting of a YOLOv7-based child-security system at daycares
- Architected the edge strategy to deploy the system on a Jetson Nano for real-time inference

Lindsay Corporation

Embedded Software Engineer II

Olathe, KS (Hybrid)

December 2021 — November 2023

- Enhanced the firmware on the Smart Pivot to use GPS-based path planning for irrigation
- 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

AGI SureTrack

Embedded Software Engineer I & II

Lenexa, KS (Hybrid)

October 2019 — December 2021

- Developed LiDAR product with a 3 DoF robotic arm for grain inventory management
- Owned the product development and commercial launch of a new IoT Gateway product

ZOLOZ

Software Engineer

Kansas City, MO (On-site)

June 2017 — October 2019

- Developed and maintained computer-vision biometric systems for a 2 DoF camera (pan-tilt)

PROJECTS

- **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

Coursera

Neural Networks and Deep Learning

Issued May 2023 | Credential ID R6Q353L77JC6