

# ARJAN GUPTA

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

## EDUCATION

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### Worcester Polytechnic Institute

Master of Science in Robotics Engineering, AV Specialization

August 2022 - December 2025

### University of Kansas

Bachelor of Science in Computer Engineering, Mathematics Minor

August 2013 - May 2017

## WORK EXPERIENCE

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### Lindsay Corporation

*Firmware Engineer*

Olathe, KS

December 2021 - present

- Completed firmware-focused replacement of Sub-GHz mesh network functionality on a legacy product
- Improved GLONASS/GNSS functionality on a sub-system of one of Lindsay's pivot irrigation products
- Modifying the firmware on Lindsay's Smart Pivot to replace Modbus RTU communication with MQTT

### AGI SureTrack

*Embedded Software Engineer I & II*

Lenexa, KS

October 2019 - December 2021

- Coordinated engineering work as a Team Lead, guided productivity and helped meet milestones
- Redesigned and greatly improved the Gateway codebase for modularity and code-coverage
- Helped maintain LiDAR product, where a major portion of the redesigned Gateway code was re-used
- Solved pre-release issues in FreeRTOS usage of Cellular Soil Probe product
- Aided firmware development for Portable Auger product with ESP32 SoC
- Implemented on-site diagnostics (LEDs, logs view) for device installation and connection diagnosis
- Implemented a backend web-service for automated firmware updates
- Proved and integrated 3G & 4G cellular IoT capabilities of the Gateway product for wider sales
- Inherited ownership of the Gateway product, brought it to market-release in 10 months

### ZOLOZ

*Software Engineer*

Kansas City, MO

June 2017 - October 2019

- Developed and maintained camera-capture and biometric matching systems
- Supported developers internationally for a time-pressed product demonstration in Wuxi, China
- Implemented data-collection applications on Android to assist R&D projects
- Supported several all-day data collection sessions in KS and OH as the sole on-site engineer
- Implemented and optimized C++ image scaling and compression algorithms
- Supported the R&D department to fine-tune several computer vision models for object detection
- Traveled to New Delhi, India to assist the integration with major payment services app called Paytm

## SKILLS

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Programming Languages:	C/C++, Python, TypeScript/JavaScript, SQL, Bash
Tools:	Git, VS Code, Unix-like command-line, CMake, Makefiles
Testing frameworks:	GTest, Jest, unittest, FFF
Operating systems:	Ubuntu with i3, Windows 10 (with WSL 1, 2), Debian, MacOS, FreeRTOS, emBOS

## RESEARCH WORK

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### Computer Vision Research under Dr. Guanghui Wang

Co-authored a research paper at KU ITTC on an object tracking algorithm for UAVs. Created ground-truths, wrote code to test the efficiency of the algorithm (in MATLAB). Reported the results for the paper.