

ARJAN GUPTA

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SKILLS

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

WORK EXPERIENCE

Lindsay Corporation

Firmware Engineer

Olathe, KS

December 2021 - present

- Completed a hardware and firmware replacement of Sub-GHz mesh network functionality on a legacy product, using UART comms on board
- Improved GPS/GNSS functionality on part of the traditional Zimmatic system
- Enhanced the firmware on the Smart Pivot Panel (aka 712C Panel) to transceive communications over MQTT
- Aided in the board bring-up of the Smart Pivot tower board
- Collaborated in porting the Tower Board firmware from one NXP microcontroller to another
- Implemented wrapper for SPI driver, used it to support embedded Flash memory and accelerometer features
- Worked on tire pressure monitoring for smart pivot, involving a Sub-GHz wireless module and sensor
- Rerouted data flowing via Modbus (on RS485) comms on main panel to 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
- 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 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

EDUCATION

Worcester Polytechnic Institute

Master of Science in Robotics Engineering, GPA: 4.00/4.00

August 2022 - December 2025

University of Kansas

Bachelor of Science in Computer Engineering, Mathematics Minor

August 2013 - May 2017

CERTIFICATES

Coursera

Machine Learning

Issued Aug 2022 | Credential ID KKFMWZ7WZCF7