

Arjan Gupta

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SKILLS

PROGRAMMING LANGUAGES	C++, C, Python, TypeScript, SQL, React, Bash, Java
MAIN TOOLS	Git, VS Code, *nix command-line, CMake, Yarn, PHPStorm, SmartGit
TESTING FRAMEWORKS	GTest, Jest, unittest, FFF
OPERATING SYSTEMS	Ubuntu with i3, Minimal Debian, Windows 10, FreeRTOS, emBOS, Android
BOARDS/MCUS	Olimex A20, ESP32, ESP8266, Arduino Mega 2560, Raspberry Pi (3B+, Zero W)
EMBEDDED PROTOCOLS	Modbus, I2C, UART, GPIO, PWM, CAN
COMMUNICATION PROTOCOLS	MQTT, HTTP, WebSocket, Cellular (LTE & 3G), Zigbee, Bluetooth

WORK EXPERIENCE

AGI SURETRACK (FORMERLY INTELLIFARMS) | EMBEDDED SOFTWARE ENGINEER II Lenexa, KS | October 2019 – Present

- Inherited ownership of the Gateway product; brought it to market-release in 10 months
- Redesigned a codebase into a test-driven, modular, efficient, and scalable code-base (C, C++)
- Coordinated engineering work as a Team Lead, guided productivity and helped meet milestones
- Implemented a backend web-service (TS, SQL) for automated firmware updates
- Proved and integrated the 3G & 4G cellular capabilities of the Gateway product for wider sales
- Supported Cellular Soil Probe product, helped solve pre-release issues in FreeRTOS usage
- Set up CI/CD with Docker and Kubernetes for projects of various kinds (web and embedded)
- Validated I/O and helped board bring-up on Portable Auger product
- Provided reviews and troubleshoot issues for beta-site preparations on Competitor Cables project
- Helped with IoT and modem improvements on BinManager product
- Implemented on-site diagnostics (LEDs, logs view) for device installation and connection diagnosis

ZOLOZ (FORMERLY EYEVERIFY) | SOFTWARE ENGINEER Kansas City, MO | June 2017 – October 2019

- Developed 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
- Pre-tested mobile releases of EyeVerify's core codebase by writing integration tests and stress tests

EDUCATION

UNIVERSITY OF KANSAS | BACHELOR OF SCIENCE IN COMPUTER ENGINEERING, MATHEMATICS MINOR
Lawrence, KS | August 2013 - May 2017 | KU-IEEE Full Tuition Waiver Scholarship

RESEARCH WORK

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.