

Gregory Kubiski-Moshansky

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Technical Skills

Programming Languages: C, C++, Python, TypeScript, Bash

Embedded and Systems: Embedded Linux, POSIX, NVIDIA Jetson platforms, Raspberry Pi, Hailo Acceleration, ESP32, GPIO, I2C, serial protocols, device trees, UEFI, bootloaders, kernel customization

Robotics, Vision, and Data: ROS 2, GStreamer, real-time data acquisition, LiDAR processing, point-cloud visualization, concurrency, performance debugging

Tools and Infrastructure: Git, Docker, PostgreSQL, FastAPI, AWS, Next.js, React, Linux debugging, CMake

Work Experience

Correct-AI | Embedded / Robotics Software Engineer | Apr 2025 - Present

- Led the redesign of an NVIDIA Jetson-based industrial vision application into a modular C++ pipeline
- Optimized system performance and startup time (from ~30s to <2s) via low-level tuning and pipeline redesign
- Built real-time multi-camera data acquisition pipelines using GStreamer with shared-memory transport and low-latency processing
- Customized NVIDIA Jetson Linux (kernel, UEFI, device trees), reducing boot time by over 40%
- Designed and integrated GPIO and I2C-based hardware interfaces, including low-level debugging of sensor communication
- Performed system-level debugging across hardware, kernel, and application layers in deployed systems

Quantum and Nanotechnologies Research Centre | Software Engineer / Technical Advisor, Research | Feb 2024 - Sept 2024

- Built camera control, image acquisition, and data processing systems for hardware-driven experiments
 - Developed Python and C tools for nanoscale image analysis and automation
 - Advised researchers on debugging and computational methods
 - Delivered technical presentations translating computational methods for multidisciplinary research teams.
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Selected Technical Projects

ESP32 Environment Sentinel

- C/FreeRTOS-based embedded sensor system capable of displaying environmental data (such as temperature, humidity, and various other air/environment quality metrics)

nexc Programming Language and Compiler

- Large-scale programming language and corresponding compiler, supporting everything from string formatting and loops to multidimensional arrays and pointers, built using C++ and MLIR/LLVM

Industrial Analytics Platform

- Extensive Next.js + PostgreSQL dashboard for viewing data/media collected in the field for current company
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Education

University of Alberta | B.Sc. Computing Science | Graduated Apr 2025

Relevant coursework: processor architecture, systems architecture, operating systems, parallel and distributed systems, compilers, algorithms, software engineering, practical programming methodology, formal systems and logic.

Also previously completed the majority of an Arts degree in Philosophy at MacEwan University.