Benjamin Probst

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Education

Computer Engineering, Queen's University, Kingston, Ontario September 2021 – Present

C, Java, Python, VHDL, Assembly, PCB, FPGA, Linux, Git, 3D CAD, Circuit Design, Hardware

- Bachelor of Applied Science – expected graduation date: April 2026
- Notable Coursework: Operating Systems, Object-Oriented Programming, Digital Systems, Computer Architecture, Electronics, Algorithms, Computer Networks, Embedded Systems.

Internships

DevOps Developer, IBM Canada Ltd. Markham, Ontario January 2024 – Present

Ansible, Kubernetes, Docker, Bash, Server Administration, Linux, REST API, Git

- Developed and implemented Ansible playbooks that are regularly deployed to hundreds of servers and Kubernetes clusters. These playbooks have significantly reduced development time by 100s of hours per week and lowered costs, enhancing the efficiency of our server management processes.
- Utilized application performance monitoring tools to created actionable alerts with reduced false positives and improved discovery, monitoring, tracing, and root cause analysis, providing valuable feedback that has freed up the DevOps team to focus on core tasks.
- Implemented a server provisioning strategy that allows suspended billing on servers when they are not in use. This approach has resulted in substantial cost savings of approximately $400,000 per year for the team, contributing to more efficient resource allocation.

Technician, Terrapex Environmental Ltd. Toronto, Ontario May 2022/23 – August 2022/23

Written Documentation, Quality Assurance, Consulting, Project Development

- Performed quality assurance tests on building materials and inspected work executed by contractors to ensure adherence to engineering standards.
- Produced professionally crafted reports that served as critical assessments of the work performed, aiding in decision-making processes, and contributing to the overall project quality.
- Developed effective communication skills through extensive collaboration with project stakeholders, including project managers, clients, and contractors.

Projects & Extracurriculars

Rover Wheel Control System, Queen's Space Engineering Team October 2022 – Present

C++, ROS, Linux-Ubuntu, Bash, Git

- Researched and developed a sophisticated drive and wheel control system. This system featured a proportional-integral-derivative (PID) controller, enabling precise tuning of motor speeds based on the terrain, enhancing the rover's performance in varying conditions.

AI Tool Sharing App, Queen's Engineering Society September 2023 – April 2024

Flutter/Dart, Firebase, Git, Gemini API

- Developed a tool sharing app with an integrated AI chatbot. Neighbors can streamline resource sharing, foster connections, and contribute to a sustainable community. The chatbot recommends tools based on project requirements, user preferences, and historical usage patterns.

Food Tracking Application, Entrepreneurship Project January 2022 – April 2022

Java, API, Git

- Developed an Android application that revolutionized food management by efficiently storing and proactively notifying users about impending food item expirations.