Benjamin Probst

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Education

Computer Engineering, Queen's University, Kingston, Ontario   September 2021 – April 2026 (expected)
- Notable Coursework: Operating Systems, Object-Oriented Programming, Digital Systems, Computer Architecture, Data Structures, Algorithms, Computer Networks, Microprocessor Interfacing, Embedded Systems, Electronics.

Skills

- **Knowledge:** Cloud Infrastructure, Server Administration, Infrastructure and Application Monitoring/Observability, Containerization, SaaS System Design, CI/CD, Event-driven Automation, Version Control, REST API, Scripting
- **Tools:** Ansible, Linux, Docker, Kubernetes, Terraform, Python, Go, Bash, PowerShell, PostgreSQL, Github Actions.

Experience

Site Reliability Engineer, IBM Ltd. Internship   May 2025 – Present
- Leveraged IBM Instana observability tools across metrics, logs, and traces to implement synthetic monitoring and smart alerting systems, enabling proactive identification of disruptions before they impact customers.
- Designed event-driven automation to resolve recurring alerts using Ansible playbooks (e.g., clearing disk space, restarting services), automating ~25 incidents weekly and saving ~15 hours of SRE effort per week.
- Extended monitoring coverage with custom Bash and PowerShell scripts, leading to enhanced discovery, and improved root cause analysis, freeing up valuable DevOps resources and allowing the team to focus on high-impact tasks.

DevOps Engineer, IBM Ltd. Internship   January 2024 – December 2024
- Implemented a sophisticated cost optimization strategy leveraging Terraform for Infrastructure as Code, encompassing intelligent provisioning of development servers allowing for suspension of cloud billing during shutdown intervals.
- Integrated with a scheduled scaling of Kubernetes worker nodes and shutdown of severs based on demand, this resulted in an annual cost reduction of $200,000, improving resource efficiency and demonstrating exceptional ROI.
- Developed Ansible playbooks that are deployed across hundreds of servers and Kubernetes clusters, significantly reducing development time and lowering costs, enhancing the efficiency of our server management processes.

Software Developer, Midtown Drywall Ltd. Freelance   May 2023 – August 2023
- Spearheaded the development of a sophisticated, full-stack application for prefabricated drywall ordering, featuring a high-performance Golang backend, an intuitive jQuery-based frontend, and secure SQLite database management.
- Augmented the core application with a custom Python Flask API server, enabling seamless data integration with Power BI for advanced analytics. Embedded Power BI dashboards directly into the application, providing real-time data visualization and actionable insights, thus transforming raw data into a powerful tool for business optimization.

Projects & Extracurriculars

Appliance Installation Management Software, Personal Project   January 2025 – Present
- Developing a multi-tenant SaaS Progressive Web App for appliance installation contractors to track employee hours, manage tasks, and monitor job site progress with real-time geolocation validation and role-based access control.
- Built with SvelteKit/TypeScript frontend, Go REST API with custom middleware for authentication, PostgreSQL database with complex schemas, triggers, and views, containerized with Docker, and deployed on AWS ECS.

Tool Sharing App, Queen's Engineering Society   September 2023 – April 2024
- Architected a cross-platform tool sharing app using Flutter, enabling efficient community resource sharing. Integrated Firebase for robust database management and user authentication, ensuring data security and seamless user experience. The app fosters neighborhood connections and promotes sustainability through streamlined tool lending and borrowing.

Rover Wheel Control System, Queen's Space Engineering Team   September 2022 – April 2023
- Engineered an advanced drive and wheel control system utilizing C++ and ROS libraries, demonstrating proficiency in robotics software and system integration. Implemented a sophisticated proportional-integral-derivative (PID) controller, enabling motor speed adjustments based on real-time analysis, enhancing the rover's adaptability to diverse terrains.