

JOEL MILLS

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EDUCATION

Queen's University

Bachelor of Computing, Honours (GPA: 4.28 / 4.30)

Expected May 2026

Kingston, Ontario, Canada

- **Awards:** Dean's Award of Excellence ('23,'24), Dean's Honour List with Distinction ('23,'24,'25), Principal's Scholarship.
- **Relevant Coursework:** Data Structures and Algorithms, Software Architecture, Operating Systems, Computer Architecture.

University of New South Wales (UNSW)

Exchange Student, Computer Science (Grade: High Distinction)

January 2025 - May 2025

Sydney, New South Wales, Australia

- **Relevant Coursework:** Algorithms, Artificial Intelligence, Web Front-end Programming.

EXPERIENCE

Lyft

Software Engineer Intern

June 2025 – September 2025

Toronto, Ontario, Canada

- Improved customer reliability by developing an automated service to clean up 'stuck' rides.
- Designed a sparse DynamoDB GSI that reduces query range from 5B base items to ~50k indexed items.
- Unlocked real-time observability into all active rides for the first time at Lyft through the GSI and a new gRPC endpoint.
- Recognized for exceeding T3 (entry-level) expectations and meeting the majority of T4 expectations.

Trillium Health Partners

Software Engineer Intern - AI Deployment and Evaluation Lab

May 2024 – August 2024

Toronto, Ontario, Canada

- Developed an open-source AI monitoring dashboard using Python, Flask, and React for models across three hospitals.
- Built an ETL pipeline processing 5,000 monthly records using MongoDB, PostgreSQL, and RESTful APIs.
- Used Prefect to orchestrate workflows with built-in error handling and automated retry logic.
- Containerized the application with Docker, ensuring consistent deployment across environments.

SueApp

Frontend Developer Intern

May 2023 – June 2023

Tel Aviv, Israel

- Led a team of 4 interns using React.js and TypeScript to develop a website for filing online claims in 5 weeks.
- Managed tasks and timelines using Jira to ensure smooth collaboration and on-time project delivery.
- Wrote onboarding documentation covering Git workflow and best practices for future intern teams.

PROJECTS

PatchLine | Python, MCP, LLMs

- Built a plugin-based framework integrating LLM vulnerability detectors and fixers via a standardized abstraction layer.
- Improved code patch quality using structured, constraint-driven prompt design over naive pipelines.

Guava | Amazon Web Services, Python, React Native, React, TypeScript

- Built full-stack grocery savings app with Python backend and React and React Native frontends.
- Designed serverless AWS architecture with Lambda, DynamoDB, S3, and API Gateway for scalability.
- Secured \$2,000 grant through AWS Build accelerator program and pitched to potential investors.

Queen's AutoDrive - Perception | Python, ROS2, MATLAB

- Developed Lidar-Camera calibration software for autonomous vehicles, implementing sensor fusion algorithms to improve perception accuracy and enhance object detection capabilities using Python and ROS2.

TECHNICAL SKILLS

Languages: Python, Go, Java, TypeScript, C#, SQL.

Technologies: Git, Docker, AWS, React, Flask, PostgreSQL, MongoDB, MCP

Concepts: REST APIs, gRPC, Cloud Computing, Distributed Computing, Code Reviews.