

# Sanvi Kaushik

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## TECHNICAL SKILLS

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**Languages:** C++, Python, TypeScript, JavaScript, Kotlin, C, Java, SQL, Bash

**Backend & Systems:** Node.js, REST/gRPC services, Postgres, Redis, scikit-learn, Pandas

**Mobile & Cloud:** Docker, Kubernetes, GitLab CI/CD, GCP, React.js

## EDUCATION

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### Carleton University

*Bachelor of Engineering (BEng) in Software Engineering*

Ottawa, ON

*Expected Apr. 2028*

- **Awards:** Dean's Honour List, President's Scholarship (\$12,000)

*GPA: 3.73/4.0*

## EXPERIENCE

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### Software Developer Intern

*Ericsson*

May 2025 – Present

*Ottawa, ON*

- Built a **retrieval-augmented chatbot** for **Cloud RAN** documentation, benchmarked across LLMs, and deployed to an internal tool used by **20+ developers**.
- Implemented **C++ protocol encoding** for beamforming modules, passing **200+ CI pipelines** to support a major **5G virtualization upgrade**.
- Created **20+ Google Tests** validating message encode/decode, increasing pre-release unit-test coverage to **100%**.

### Software Developer Intern

*BlackBerry*

May 2024 – Aug. 2024

*Ottawa, ON*

- Engineered a **C++ synthetic sensor** in the **BlackBerry IVY<sup>®</sup>** cloud to process vehicle telemetry, improving dog-safety detection accuracy by **40%**.
- Trained and deployed a **TensorFlow Lite** model for seat-occupancy detection with **92% precision**, integrating inference into the Android application using **Kotlin**.
- Refactored **GitLab CI/CD pipelines** using **YAML** and **Docker**, modularizing SDK tests and stabilizing **100+ builds** with **30% fewer failures**.

## PROJECTS

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### Trace (1st Place @ Tech-Nol-Hack 2025) 🏆 | *JavaScript, Node.js, Express, SQLite, Leaflet*

- Developed a **risk-aware routing engine** computing safer detours in **¡200 ms**, raising routing safety scoring by **32%**.
- Designed a **privacy-preserving reporter** using anonymous clustering, improving data reliability by **45%**.
- Awarded **1st Place** and \$450 prize by a **Microsoft Security Engineer** for measurable civic impact.

### Global Trade ETL Pipelines 🏆 | *Python, Pandas, PostgreSQL*

- Engineered a **parallel ETL pipeline** processing **10K+ XML records/batch**, reducing parse time from **90s → 15s**.
- Applied **Pandera validation** for **100% schema coverage**, blocking **455 malformed rows (23%)**.
- Implemented **idempotent upserts** with audit logging, sustaining **1.2M rows/min** without duplicates.

### Dual Wordle Solver 🏆 | *Ruby, React.js*

- Created a **Bayesian solver** achieving **5.43 average guesses** across **300 simulations**.
- Built a **Ruby REST API** enabling adaptive inference in **¡100 ms**.
- Developed a **React UI** visualizing probability updates, reducing user guess count to **7 avg.**.