

# Bhavya Modi

Software Engineer with 3 years of experience in Full Stack Development, Infrastructure and Data Engineering

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## EDUCATION

### University of Waterloo

*Honours, Bachelor of Computer Science*

Waterloo, Canada | Sept. 2021 - Aug. 2026

- *Relevant Coursework:* Data Structures & Algorithms, Operating Systems, Database Systems, Data-Intensive Distributed Systems, Computer Networks, Machine Learning, Embedded Programming

### Wilfrid Laurier University

*Honours, Bachelor of Business Administration, Finance Concentration*

Waterloo, Canada | Sept. 2021 - Aug. 2026

## EXPERIENCE

### Figure AI - Software Engineer Intern

San Jose, California | Sept. 2025 - Dec. 2025

- Reduced test publishing latency from **40 minutes** to **3 minutes** by architecting and scaling a TypeScript/React test-management app with optimized SQL indexing, concurrent ingestion, and multi-layer Redis caching
- Enabled real-time inspection of high-performance binary protocols by building a C++/libpcap Layer-2 debugger to capture and deserialize FlatBuffer payloads with zero-copy overhead for **Figure 4 bring-up**
- Decreased false-positive test failures by **90%** by building a Python CI validation gate that profiled memory across critical suites, set regression thresholds, and blocked merges via automated checks and actionable failure reports for owners
- Reduced root cause analysis time by **hours** by developing Grafana dashboards and alerting that joined time-series telemetry with PostgreSQL failure events, enabling one-click filtering by robot/build/test and triggering high-signal regression alerts

### theScore - Software Engineer Intern

Toronto, Canada | Jan. 2025 - May 2025

- Reduced customer support workflow time by **15 minutes per request** by optimizing microservice data paths with gRPC/Protobuf interfaces and improving Elixir service performance on frequent support workflows
- Reduced backend engineering support tickets by **40+ per month** by expanding GraphQL coverage and **enforcing consistent schemas** to unblock self-serve analytics for data consumers
- Accelerated feature deployment by **3 days per release cycle** by building reusable React components and Tailwind CSS patterns, standardizing UI primitives across **25+ pages**

### DayForce - Software Developer Intern

Toronto, Canada | Jan. 2024 - May 2024

- Increased data throughput by **40%** by building a real-time Java/Kafka ingestion pipeline, introducing streaming validation/transforms, and replacing a legacy batch workflow to support new client onboarding
- Reduced manual intervention by **10+ hours per week** by implementing automated error handling with Azure Cosmos DB, adding durable failure states, and integrating internal retry/replay APIs to recover from transient faults
- Reduced deployment time by **1 hour per release** by automating SQL build/deploy workflows in YAML CI/CD pipelines, standardizing environment configs, and removing manual release steps

### CMiC - Software Engineer Intern

Toronto, Canada | Jan. 2023 - May 2023

- Reduced manual data retrieval time by **75%** by automating client reporting with **10+** Java/SQL dashboards, centralizing KPI views, and eliminating repeated on-demand queries for stakeholders
- Achieved **95% test coverage** and reduced integration errors by **15%** by implementing a nightly JUnit + Apache ANT build pipeline that ran comprehensive suites and identified failures early for faster fixes
- Reduced build duration by **15 minutes** by optimizing Apache ANT regex tasks and removing unnecessary processing

## PROJECTS

### DIB Canada - Project Lead

GitHub | August 2025

- Partnered with the CEO to deliver an AI-driven Node.js/React web app for secure document ingestion and automated compatibility scoring, saving **30 min per document** and increasing vendor RFP discovery by **72%**

### MatchaGoose - Team member

GitHub | June 2025

- Shipped and launched a student networking product to **300+** users, building a **Next.js** swipe/feed experience and a **512-dim** embedding-based ranking system to improve match quality, resulting in a **20%** increase in campus engagement

## TECHNICAL SKILLS

**Languages:** TypeScript/JavaScript, Python, Java, SQL, C/C++

**Frameworks:** React, Node.js, GraphQL, gRPC/Protobuf, Tailwind CSS

**Tools:** PostgreSQL, Redis, Kafka, Azure Cosmos DB, Git/GitHub, CI/CD, Docker, Grafana