Prithvi Shah

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Education

University of Waterloo — **Waterloo, ON**
Bachelor of Computing and Financial Management (Honours Co-op) — *Expected Apr 2029*

Experience

Mobile Data Technologies — **Jan 2027 – Apr 2027**
Software Development Engineer — *Calgary, AB*

- Joining the Cloud team to design, build, test and deploy services for the **MDT Cloud** platform, which stores, displays and analyzes telemetry from oil and gas control systems.
- Will ship user-facing features and responsive interfaces for field equipment data, working in an **Agile Scrum** team with sprint-based delivery and time estimates for stakeholders.

OpenText — **May 2026 – Aug 2026**
Software Engineer — *Waterloo, ON*

- Contributed to an internal **AI orchestrator** that automates incident triage, helping build workflows that correlate alerts, pull context from runbooks and suggest resolution steps to operators.
- Monitored critical production systems across multiple global **AWS** data centers, resolving **99%** of critical incidents before customer impact.
- Triaged and debugged **50+** production incidents weekly within SLA (**200+** over the term), tracing failures across services, networking and infrastructure with engineering teams.
- Authored **20+** runbooks and **KCS** knowledge articles that fed the orchestrator's resolution suggestions and cut onboarding time for 24/7 operators.

Atrangi Eventz — **Jan 2024 – Aug 2026**
Co-Founder & CTO — *Toronto, ON*

- Co-founded an events company and built its full-stack ticketing platform from scratch, shipping to **1,000+** users and owning frontend, backend, database, deployment and monitoring for **2.5+** years.
- Designed the relational database for events, tickets and orders, keeping checkout reliable and preventing overselling during high-traffic ticket drops.
- Integrated **Stripe** for payment processing so **100%** of ticket sales were tied to a verified payment, and shipped features weekly from direct user feedback.
- Generated **$25K+** in annual revenue while recruiting, managing and leading a **50+**-person team across operations/product.

Projects

TickStore: Columnar Market-Data Engine | *Rust, Python, Parquet, DuckDB*

- Built a **Rust** columnar storage engine for trade and quote ticks, with adaptive per-column encodings, min/max chunk pruning, and a write-ahead log that recovers from crashes without losing or duplicating rows.
- Packed a **3M**-row session into **17.3 MiB**, **8x** smaller than CSV and **15%** smaller than Parquet zstd (**20.5 MiB**).
- Served session VWAP in **1.26 ms** and 10-minute as-of joins in **2.33 ms**, vs **1.64 ms** and **13.7 ms** in DuckDB, with all results checksum-matched against the same aggregates.

Pricing Guard: Stripe Pricing Validator | *Go, PostgreSQL, REST APIs, Docker*

- Built a backend service that audits a merchant's product catalog via the **Stripe API** and flags pricing mistakes before launch, using **6** configurable rules.
- Implemented a **webhook** handler with signature verification and idempotent event processing, so retried events never produce duplicate results.
- Wrote table-driven tests (**100%** coverage on the rules engine, **88%** overall) and validated against a live sandbox, catching all **10** planted errors with no false positives.

DeadZone: Transit Accessibility Graph (NVIDIA Hackathon) | *TypeScript, Next.js, FastAPI, RAPIDS cuGraph*

- Modeled Toronto's **TTC GTFS** transit network as a graph and ran GPU graph algorithms to map public-service access gaps.
- Served results through a **FastAPI** backend to a TypeScript and Next.js web app rendering an animated heatmap.
- Built end to end in a hackathon setting: data ingest, GPU compute, API and frontend, shipping a working demo under tight time constraints.

Technical Skills

Languages: Python, C++, Java, JavaScript, TypeScript, C, Go, SQL, Rust
Technologies: React, Next.js, Node.js, FastAPI, REST APIs, PostgreSQL, AWS, Docker, Linux, Git, CI/CD
Practices: Agile Scrum, IoT and Telemetry Data, Cloud Services, LLM Agents, Incident Management, KCS