

STIVI GURANJAKU

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EDUCATION

University of Waterloo

Honor's Bachelor of Mathematics, Combinatorics and Optimization

Waterloo, ON

Sept 2020 – June 2025

EXPERIENCE

Software Engineer

Jan. 2026 – Present

Dialpad Canada

Kitchener, ON

- Developed mission-critical billing logic in **Python**, leveraging **Sanic (Asynchronous)** and **Google Datastore** to manage complex subscription lifecycles for global enterprise clients.
- Architected robust backend flows by integrating **Braintree SDK**, ensuring 100% idempotency and preventing revenue leakage during high-concurrency automated invoicing events.
- Collaborated across a **monorepo** environment to optimize financial data structures and triage production bugs, improving data integrity for expanding product capabilities.
- Implemented seamless payment workflows in **Vue.js** and Native mobile apps, reducing checkout friction and enhancing user self-service account management.
- Built developer tooling to replicate production company data covering 55+ entity types, increasing developer building and testing capabilities.

Full-stack Mobile Developer

Sep. 2023 – Dec. 2023

Semper8 Capital Ltd

Toronto, ON

- Developed **NestJS** REST APIs with **AWS (Cognito, S3, Lambda)** and **PostgreSQL** to support real-time **WebRTC** video and text communication features.
- Implemented a matching engine utilizing **K-Means Clustering** for personality-based interactions, optimizing an **ETL pipeline** to aggregate user behavior and app usage statistics.
- Built cross-platform features using **React Native** and **Redux**, enabling real-time content state management.

QA Engineer

Jan. 2023 – Apr. 2023

Uptake Inc

Mississauga, ON

- Automated 100+ E2E tests using **Selenium** and **Appium** across 4 distinct product lines, significantly reducing manual regression overhead and accelerating release cycles.
- Developed a data-driven dashboard providing real-time insights into automated test coverage and system performance.

Software Engineer

May 2021 – Aug. 2021

Titanfile Inc

Toronto, ON

- Architected a streaming decryption feature to process encrypted folders chunk-by-chunk into ZIP files, ensuring browser compatibility while minimizing server memory overhead.
- Optimized **CI/CD** pipelines and **Docker** configurations, decreasing build times and improving developer velocity.
- Improved backend response times by optimizing complex **SQL** queries and managing database migrations via **Amazon Babelfish**.

PROJECTS

Hearthstore | Go, SQL

- Open-source, high-performance alternative to the official Java Cloud Firestore/Datastore emulator
- Built on a multiplexed architecture handling gRPC, WebChannel, and REST APIs on a single port, converting native NoSQL requests to native SQL
- Reduces memory usage by over 99 percent while maintaining performance and correctness

Discord Music Bot | Node.js, Discord.js, FFmpeg, AWS

- Engineered a real-time audio streaming bot utilizing **FFmpeg** and **AWS** to pipe audio data directly to Discord's voice gateway, eliminating local disk buffering and reducing latency.
- Implemented an asynchronous queue management system to handle concurrent requests across multiple Discord guilds while maintaining high-fidelity audio output.

StreamSaver.js (Open Source Contributor) | JavaScript, Web Streams API

- Extended functionality of a client-side saving library to support large-scale ZIP archives (4GB+) and custom **TransformStreams**, focusing on reliable memory management in browser environments.
- Optimized asynchronous data throughput by implementing backpressure handling within the **Web Streams API** pipeline, preventing browser crashes during high-volume data transfers.