

Aghilan Nathan

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EDUCATION

University of British Columbia

Vancouver, BC

Bachelors in Computer Science and Business, GPA (3.90 / 4.33)

Graduating December 2024

- Courses: Object Oriented Programming in Java, Data Structures and Algorithms, Computer Systems
- Certifications: Microsoft Azure Fundamentals

TECHNICAL SKILLS

Languages: TypeScript, Python, Java, JavaScript, SQL

Frameworks and Libraries: React, ExpressJS, JUnit5, Flask, Redux, Serverless

Developer Tools: Amazon Web Services, Git and GitHub, VSCode

PROJECTS

Gym Book - Workout Tracker | *Amazon Web Services, TypeScript, NodeJS*

July 2022 - August 2022

- Designed API with AWS Lambda architecture to reduce costs and integrate with other cloud resources
- Provisioned Infrastructure as Code via AWS CloudFormation to automate multiple cloud service deployments
- Created TypeScript interfaces to perform server-side validation maintaining data integrity in AWS DynamoDB

Linux File System | *Java, JUnit5, Java Swing*

July 2022 - August 2022

- Developed both a terminal based and GUI based way to run Linux commands and interact with the file system
- Unit tested code with 100% test coverage for all classes and automated testing with GitHub Actions CI/CD
- Applied Object Oriented design patterns such as Singleton to reduce prop drilling with global state
- Implemented method to marshall JSON data read from disk to a Java Object and vice-versa

Skyfall - Legacy Videos | *ExpressJS, React, TypeScript, PostgreSQL, Azure*

May 2022 - June 2022

- Created REST API while following the MVC design pattern and JavaScript best practices
- Developed a multi page React UI with a mobile-first approach following responsive web design principles
- Designed architecture allowing multiple endpoints to upload large video files to single Azure Blob Storage
- 50% reduction in latency of read operations by reorganizing Azure SQL DB to de-normalizing schema
- Reduced time to refresh by over 70% through caching API data, decreasing HTTP requests made

Dollar Lost | *React, TypeScript, Supabase, PostgreSQL*

February 2022 - April 2022

- Enabled users to track their expenses and stocks visualized in a table and React Charts graph
- Architected database schema to reduce average latency given knowledge of the most common queries made
- Utilized multiple external APIs like Yahoo Finance to ensure the latest stock performance was delivered
- Optimized render time by over 30% through decomposing React components into sub-components

EXPERIENCE

Private Tutor

Sept 2020 – Present

Self-Employed

Calgary, AB

- Worked one-on-one with students seeking assistance in multiple subjects such as Math, CS, Physics
- Experimented with marketing strategies to eliminate bottlenecks increasing revenue by over 200% over 2 years
- Frequently taught areas such as Intro to Programming, Object Oriented Programming and Web Development
- Average improvement of 23% per student in Physics, 20% in Math, and 18% in Computer Science respectively

ABOUT ME

Interests: Stoicism, Canadian Personal Finance and Investing, Entrepreneurship

Fun Fact: I wrote a backtracking algorithm in Python which names South Indian babies based on their birthday and parents names which now generates on average \$60 CAD per day.