Alexander Yee

alexanderyee_300@outlook.com | alexanderyee.com | linkedin.com/in/a-yee/ | github.com/AYee1242

EDUCATION

University of Waterloo   Waterloo, ON
Candidate for Bachelor of Software Engineering (B.SE)   *Sept. 2019 – April 2024*
- Cumulative Average: 87.6%
- Related Coursework: Algorithms, Computer Networks, Data Structures, Database Management, Concurrent & Parallel Programs, Software Test & Quality Assurance, Software Design and Architectures, Statistics for S.E.

EXPERIENCE

Terrace   Jan. 2023 – April 2023
Software Engineer   *New York City, NY*
- Implemented a test-driven development approach to establish a robust user authentication system in **Go**, utilizing **microservices** architecture and integrating a third-party two-factor authentication provider for over 10,000 users
- Implemented a **TypeScript** cron job utilizing **Kubernetes** to monitor the health of over 100,000 transactions
- Formulated unit tests in **Go** for critical software components, leveraging **Docker** for seamless test execution
- Utilized proper indexing, batch processing, eager loading, and **Redis** caching techniques for **MySQL** database **Gorm** operations to reduce **GraphQL** endpoint response time latencies by up to 200%

AP Capital & Mamoru   May 2022 – August 2022
Software Engineer   *North York, ON*
- Constructed a trading bot with **Node.js** and **web3.js** to capitalize on arbitrage opportunities across 3 DEXs
- Architected and developed **REST** APIs using **Express** and **TypeScript**, leveraging **Firebase** cloud functions to efficiently record and retrieve information for 1000s of Decentraland metaverse users in a **NoSQL** database
- Reduced smart contract calls in a **Node.js** blockchain application by 20% by optimizing caching and event calls
- Designed and produced a test suite using **Mocha** for a critical **Node.js** application and achieved a 96% coverage

Portable Intelligence Inc   Jan. 2021 – April 2021, Sept. 2021 – Dec 2021
Software Developer   *Markham, ON*
- Implemented custom license management services using **C#** to handle subscriptions for an **ASP.NET** application
- Leveraged **LINQ** in **C#** to efficiently query millions of entries from a **SQL Server** database and utilized **JavaScript** to provide meaningful insight to the data with visually appealing and interactive graphs
- Created a service to dynamically build forms in **AngularJS** to generate 100s of tailored customer crystal reports
- Enhanced a modular **AngularJS** table service to allow users to export table data for over 20 tables as a CSV file
- Reduced latency of large **LINQ-to-Entities** queries in **C#** by up to 20% of the execution time with indexing
- Developed a Windows Forms application to streamline the management of configuration files for efficient testing

Xe   May 2020 – August 2020
Full-Stack Developer   *New Market, ON*
- Expanded an **ASP.NET Core MVC** application to demo Xe's **REST** APIs to over 30 businesses using **C#**
- Produced a comprehensive suite of unit test cases for XE's **REST APIs** using **Postman**, catching over 20 bugs
- Established a GitLab **CI/CD** pipeline that utilizes **Terraform** to automatically deploy an **ASP.NET Core** web application to **AWS Lambda** with **API Gateway**, decreasing deployment time by 80%

PROJECTS

Battle Tracker | *Python, SQLAlchemy, PostgreSQL, Discord.py*   Feb. 2023 – Present
- Created a comprehensive **Python** Discord bot tailored for Smash enthusiasts, offering an elo-based leaderboard for players, game tracking, and statistical insights for player characters, win rates, and match history

TECHNICAL SKILLS

Languages: Python, Go, C#, C, C++, Java, HTML5, CSS, JavaScript, TypeScript
Frameworks and Libraries: AngularJS, ASP.NET, ASP.NET Core, Django, Flask, SQLAlchemy
Tools: Git, Azure DevOps, Jira, AWS (Lambda, API Gateway), Postman, Terraform, Node.js, Docker, Kubernetes