Alexander Yee

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Skills

Languages: Python, C#, C, C++, Java, HTML5, CSS, JavaScript
Frameworks and Databases: AngularJS, ASP.NET, ASP.NET Core, Django, Flask, Bootstrap, SQL Server, Mocha
Tools: Git, Azure DevOps, Jira, AWS (EC2, Elastic Beanstalk, Lambda, API Gateway), Postman, Terraform, Node.js

Professional Experience

AP Capital & Mamoru   May 2022 – August 2022
Software Developer
- Constructed a trading bot with **Node.js** and **web3.js** to capitalize on arbitrage opportunities across 3 DEXs
- Developed REST APIs using **Express** and **Typescrip**t with **Firebase** cloud functions to log information for 1000s of users on a **NoSQL** database during promotional events in the Decentraland metaverse
- Reduced smart contract calls in a **Node.js** blockchain application by 20% by optimizing cache use and event calling
- 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
- Implemented a subscription-based licensing model for **ASP.NET** applications by creating a **.NET** Windows service in **C#** to request for customer licensing information and send an AES encrypted version to a **SQL Server** database
- Developed **LINQ-to-Entities** queries to compile **SQL Server** tables with millions of entries into graphs using **JavaScript**
- Created a feature to dynamically build forms in **AngularJS** for crystal reports, removing future development work
- 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
- Investigated legacy **Visual Basic** code to develop a Windows Forms app to manipulate config files for testing purposes

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

Projects

Operating System
- Developed an executive onto a MCB1700 board with LPC1728 microcontroller and console UI in **C**
- Imposed context-switching, scheduling, preemption memory management and communication between processes

Blog ✎
- Launched a scalable blog website using **Bootstrap, Python**, **Django, AWS Elastic Beanstalk,** and **EC2**
- Implemented **CRUD** operations for user created profiles, blogs and comments to be stored in a **PostgreSQL** database

Education

University of Waterloo   Waterloo, ON
Candidate for Bachelor of Software Engineering (B.SE)   Sept 2019 – Apr 2024
- Cumulative Average: 87.6%
- Related Coursework: Algorithms, Operating Systems, Data Structures, Database Management, Programing Principles, Compilers, Software Test & Quality Assurance, Software Design and Architectures, User Interfaces, Statistics for S.E.