Brian Fong
Software Engineer

Advocate for technology to help better, improve, and protect people's lives.

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SKILLS

C# · Python · C

C++ · Powershell

HTML/CSS/JavaScript

Matlab · R · Ruby

Bash · Unity

Azure · GCP

React JS · Express JS

Django · MongoDB

CosmosDB · Git

Postman · Wireshark

PowerBI · Jarvis

INTERESTS

Guitar · Foosball

Game Dev

Fiction Writing

Martial Arts

WORK EXPERIENCE

Software Engineer – Azure Core Security Services
Microsoft

03/2020 – Present   *Redmond, WA, USA*

Achievements/Tasks

- Wrote maintainable and secure C++ code for 2nd generation VMs, forming the core authentication used in an SGX enclave for attestation.
- Pioneered the enclave validation testing workflow in an Azure VM which deploys a built SGX image and wrote unit and end-to-end tests for validation. Wrote the PowerShell script to automate git, clearing and deploying enclave images onto the service fabric cluster, as well as running the build tools.
- Built a comprehensive testing framework for the 2nd gen VM's by automating and implementing end-to-end tests with PowerShell runbooks and Azure Automation. To measure metrics such as API duration and successes, wrote C# test scripts for Azure's attestation API calls of virtual machines and created a dashboard in Microsoft's Jarvis.

Full Stack Web Engineer
RemotechWork.com

05/2020 – Present   *Remote*

Achievements/Tasks

- Used React JS, Express JS, and Mongo DB to create a web app that lists remote jobs in response to the COVID-19 pandemic to aid those in need for work.
- Did full-stack web development with Express JS to apply CRUD operations to Mongo DB in the backend and React JS to call the Express API to receive data for the frontend.
- Hosted the web app on an Azure Linux VM using NGINX as a reverse proxy server for the React and Express app and bound the IP address to a domain name.
- Setup Google Search console, and modified the meta tags in the HTML to provide better search engine optimizations so that the site can be queried in Google.

Software Engineer (Contract)
Microsoft

09/2018 – 12/2018   *Vancouver, BC, CAN*

Achievements/Tasks

- Maintained a mixed reality C#/Unity application used for visualizing tumors and cancer cells. Was part of the development team as an intern, and was brought back as a contractor.
- Worked with the Mixed Reality Tool Kit and Photon Unity Networking, to create a P2P app that renders holograms in 3D with the HoloLens and can be manipulated over the network.
- Created Jupyter Notebooks to help BC cancer researchers to query data while abstracting the technical details.

PERSONAL PROJECTS

R.P.R.P.G. (Reproducible Pseudo Random Password Generator) (05/2019)

- Used Javascript to create a password generator on the client side. The aim was to create a secure way to generate passwords consistently by entering data in a HTML form and using JavaScript to hash a password.
- The goal was to minimize the need to save data in a database and to reduce data transferred over the network to minimize possible attack vectors.

EDUCATION

Bachelors of Science (Major in Computing Scient)
Simon Fraser University

09/2014 – 06/2020   *Burnaby, BC, CAN*