

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

Remotework.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. 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 Science)

Simon Fraser University

09/2014 – 06/2020

Burnaby, BC, CAN