

# Brian Fong

## Software Engineer

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

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## WORK EXPERIENCE

### Software Engineer - Azure Red Team

Microsoft

08/2020 - Present

Redmond, WA, USA

#### Achievements/Tasks

- Architected and implemented a cloud service for ingesting, processing and visualizing security metadata in a graph database for Red Team and defender operations with .NET, C#, Kusto, and Neo4j
- Used Application insights for telemetry to fire alerts during service downtime, missing data, and prolonged operations
- Ensured that the service met production level code quality and company required security compliances

### Software Engineer – Azure Core Security Services

Microsoft

03/2020 - 08/2020

Redmond, WA, USA

#### Achievements/Tasks

- Wrote maintainable and secure C++ code for authentication used in an SGX enclave for attestation of Trusted VMs
- Pioneered the enclave validation workflow system to automate git, run build tools, clear and deploy enclave images and run tests
- Built the testing framework for the Trusted VMs by automating and implementing end-to-end tests with PowerShell runbooks

### Software Engineer Intern - Azure Red Team

Microsoft

05/2019 - 08/2019

Redmond, WA, USA

#### Achievements/Tasks

- Mentored a team of interns by organizing workshops to help onboard them to the tech stacks used as well as providing guidance
- Developed a mixed-reality Unity cross-platform application for viewing Azure Active Directory graphs in 3D
- Integrated a chat-bot in Azure to allow voice commands for accessibility

### Software Engineer (Contract) - Garage

Microsoft

09/2018 - 12/2018

Vancouver, BC, CAN

#### Achievements/Tasks

- Maintained a mixed reality C#/Unity application used for visualizing tumors and cancer cells
- Worked with the MRTK and PUN to create a P2P app that renders holograms in 3D with the HoloLens and can be manipulated remotely
- Documented libraries used as well as kept them up to date before hand off to customer for ease of use

## SKILLS

C#

Python

C

C++

Powershell

HTML / CSS / JavaScript

Matlab

R

Ruby

Bash

Unity

Azure

React JS

Express JS

Django

MongoDB

CosmosDB

Git

Postman

Kusto

Application Insights

## PERSONAL PROJECTS

### RemotechWork.com (05/2020 - Present)

- 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

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

- Used Javascript to create a password generator on the client side to create a secure way to generate passwords consistently by entering data in a HTML form and using JavaScript to hash a password
- Minimize the need to save data in a database and to reduce data transferred over the network to minimize possible attack vectors
- Increased complexity to passwords by not only relying on the seed generated by the answers to prompts, but also incorporating the answers into the password generation

## EDUCATION

### Bachelors of Science (Major in Computing Science)

Simon Fraser University

09/2014 - 06/2020

Burnaby, BC, CAN