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| Haydn Keung | haydnkeung.github.io | github.com/haydnkeung |
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**Languages:** Java • Python • C++ • Groovy • C# • Shell • SQL

**Tools & SDKS:** AWS • Terraform • Jenkins • Docker • Android • Splunk • MySQL • Packer • Unity3D

# Experience

### **Site Reliability Engineer** | Trend Micro Inc. Jan 2020 – Apr 2020

*Python, Java, AWS, Jenkins, Terraform, Docker*

* Built Terraform modules and Jenkins jobs used by over 100 engineers to automate creation of development infrastructure
* Reduced monthly AWS expenses by $60,000 by implementing a serverless cloud management tool on AWS monitoring and remove unused resources
* Created dashboard with real-time analytics of system performance by wrangling AWS logs and building data streams using Kinesis, Splunk and Python
* Implemented an OSI layer 3 (network layer) firewall for private subnets

### **Software Engineer Intern** | Madoor International Inc. May 2019 – Aug 2019

*Java, Kotlin, Android, MySQL*

* Implemented a payment system for the Android app supporting Google Pay, WeChat Pay and PayPal processing up to $500 per transaction
* Developed an internal tool using Java and Groovy to automate pre-deployment tests, reducing deployment time by more than an hour
* Implemented in-app caching, reducing loading time by nearly 50%
* Built a UI rendering library using Java, increasing the rendering speed by 3x

# Projects

### **Connect-4** May 2020

*Python, Numpy, Tensorflow*

* Built an AI to play connect-4 using reinforcement learning, Python, Numpy and Tensorflow
* Creating heuristics using game theory to train AI through self-play
* Competed in online competitions against other AIs on Kaggle placing 74/394

### **Chatify** Aug 2019

*Python, Flask, PostgreSQL*

* Built an online chatting forum using RESTful principals
* Created a database in PostgreSQL for storing chat history
* Implemented security module for cleaning inputs against SQL and XSS injection attacks

### **Online Multiplayer Shooter** Dec 2018

*C#, Unity Engine, Photon Networking*

* Built a 2D multiplayer space simulation game using Unity Engine
* Configured networking to host the game on cloud using Photon Networking API
* Wrote interpolations to predict movement of game objects, reducing lag due to network latency

# Achievements

### **AWS Certified Solution Architect** May 2020

# Education

### **Candidate for Bachelor of Software Engineering** Sep 2018 – Apr 2023

* University of Waterloo