





# Haydn Keung

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**Languages:** Java, Python, C++, Groovy, Shell, SQL

**Tools & SDKS:** Jenkins • Tensorflow • Splunk • MySQL • Packer • Unity3D

**Cloud/Infrastructure:** AWS (Certified SAA) • GCP • Terraform • Docker • Kubeflow

## Experience

**ML Engineer/BI Developer Intern** | Square Enix Inc.

Sep 2020 – Dec 2020

*Python, GCP, Tensorflow, Kubeflow, Apache Beam*

- Designed and led the development of ML pipelines using Tensorflow Extended, Kubeflow and GCP to extract data from data warehouses and continuously training new ML models
- Led the development of ML projects by gathering details and requirements from non-technical stakeholders, translating requirements into project descriptions, breaking down projects and distributing JIRA tasks
- Created ETL pipelines using Apache Beam to, clean, wrangle and prepare data for ML

**Site Reliability Engineer Intern** | 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

**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

## Education

**Candidate for Bachelor of Software Engineering**

Sep 2018 – Apr 2023

- University of Waterloo