

# Haydn Keung

2B Honours Software Engineering, University of Waterloo  
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## LANGUAGES

Java • Python • C++ • Groovy •  
C# • Shell • SQL

## TOOLS & SDKS

AWS • Terraform • Jenkins •  
Docker • Android • Splunk  
• Jupyter • MySQL • Unity3D

## COURSEWORK

Compilers  
Unix Tools and Scripting  
ARM Assembly  
Multivariate Calculus  
Linear Algebra  
Statistics & Probability  
Digital Circuits  
Formal Verification  
Computer Architecture

## CERTIFICATIONS

2020 AWS Solution Architect (Associate)  
2020 AWS Cloud Practitioner

## AWARDS

2018 President's Scholarship  
2018 BC District Scholarship  
2018 UBC Physics Olympics

## EDUCATION

**UNIVERSITY OF WATERLOO**  
**SOFTWARE ENGINEERING**  
Sep 2018 - Apr 2023 | Waterloo, ON

## LINKS

Github:// [haydnkeung](#)  
Kaggle:// [haydnkeung](#)  
LinkedIn:// [haydnkeung](#)

## EXPERIENCE

### TRENDMICRO | SITE RELIABILITY ENGINEER

Jan 2020 – Apr 2020 | Ottawa, ON

- 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 using **Java**

### MADOOR | SOFTWARE ENGINEER INTERN

May 2019 – Aug 2019 | Vancouver, BC

- 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

### NORTH GROWTH MANAGEMENT | IT SUPPORT TECHNICIAN

May 2018 – Aug 2018 | Vancouver, BC

- Worked with DB administrator to connect **MS SQL** DB to corporate network
- Installed and configured a Windows 2012 server for keeping track of client information and financial data

## PROJECTS

### CONNECT-4 | COMPETITIVE GAME AI

May 2020

- Built an AI to play connect-4 based on reinforcement learning techniques, **Python, Numpy and Tensorflow**
- Competed in online competitions against other AIs on Kaggle placing 191/381
- Trained AI by creating heuristic based algorithms to challenge the AI

### CHATIFY | ONLINE CHATTING FORUM

Aug 2019

- Built an online chatting forum by creating RESTful APIs using Flask
- Created a **PostgreSQL** DB for storing chat history
- Implemented security module for cleaning inputs against SQL and XSS injection attacks

### SPACE SHOOTER | ONLINE MULTIPLAYER SHOOTER

Dec 2018

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