

# HUNG-KUANG(KEN) HAN

🏠 Mountain View, California | ✉️ [hung-kuang.han@sv.cmu.edu](mailto:hung-kuang.han@sv.cmu.edu) | ☎️ 669-266-8107  
🌐 [linkedin.com/in/ken-han](https://www.linkedin.com/in/ken-han) | 🌐 [cv.ken-han.wiki/?project](https://cv.ken-han.wiki/?project) | 🌐 [github.com/ken90242](https://github.com/ken90242)

## EDUCATION

<b>Carnegie Mellon University</b>	Master of Software Engineering	Mountain View, California	Aug 2021 – Dec 2022
<b>National Taiwan University</b>	Master of Information Management	Taipei, Taiwan	Sep 2017 – Jun 2019
• Thesis: A Deep Learning Model for Extracting Live Streaming Video Highlights using Audience Messages			
<b>National Chengchi University</b>	Bachelor of Management Information Systems	Taipei, Taiwan	Sep 2011 – Jun 2016

## WORK EXPERIENCE

**Riot Games Inc.** May 2022 – Aug 2022  
*Software Engineer Intern* Los Angeles, California

Team Matchmaking System (Java, Python, Spring):

- Proposed new matching algorithms to enhance over 3 millions daily game matches quality measured by off role parity rate.
- Improved off role parity rate by 54.1% at the cost of less than 6% increase in 95 percentile queue time.
- Aggregated millions of game match and analyzed result using Python, pyshark, Java, and Databrick.

League of Legends Client Application(C++, Java, JavaScript):

- Invented next generation interface for over 100 millions monthly active players worldwide using Java, C++ JavaScript.

**Houzz Inc.** Jan 2021 – Aug 2021  
*Software Engineer* Palo alto, California

Website Quality Monitoring Daemon (JavaScript, Shell Script, k8s):

- Initiated site monitoring tool for hundreds of engineers to subscribe real-time site accessibility using React.js, Node.js.
- Implemented site-monitoring hot plugging and extracted hundreds of metrics impacting user-perceived performance.

Build, Deployment and Release platform (Java, JavaScript, Shell Script, k8s):

- Managed platform for hundreds of engineers in whole firm to build, deploy, canary by integrating Jenkins, Github, Spinnaker.
- Increased number of CI/CD pipeline by 100% for various testing scenarios, e.g. infrastructure testing.

**Trend Micro Inc.** Sep 2019 – Jan 2021  
*Software Engineer* Taipei, Taiwan

Sandbox Core Module (C++, Python):

- Facilitated virus scanning in real-world environment by instantiating customized sandbox adapted to heterogeneous file type.
- Boosted number of scannable file types for viruses detection by 500% by revamping existing code base.
- Expanded compressed file types by 12.5% by reconstructing third-party decompression C++ plugin.

Analyzer Preparation Tool (C++, Python, C#):

- Established new procedures for hundreds of corporation users to build virtual machine suitable for virus scanning on Linux.
- Collaborated with Designer and Translator for clients in 3 different lingual regions to enhance usability for different cultures.
- Enabled clients to create extra 34% of sandboxes out of thousands of existing sandboxes to cover virus scanning on Linux.

**National Taiwan University** Sep 2017 – Aug 2019  
*Associate Software Engineer* Taipei, Taiwan

- Originated cross-platform information system for 8 users performing report-making/info-query in JavaScript and Node.js.
- Reduced information retrieval times by 80% by summarizing student information from various databases.

## LANGUAGES AND TECHNOLOGIES

**Programming Languages and Frameworks:** C++, Java, Python, Node.js, JavaScript, SQL, React.js, MongoDB, Shell Script

**Tools and Platforms:** AWS, Docker, k8s, Jenkins, Git, Linux, Restful APIs

**Relevant Coursework:** Computer Networks, Database Systems, Algorithms, Data Structures, System Programming, Probability, Text Mining, Data Mining, Deep Learning, Linear Algebra, Machine Learning, Convex Optimization, Cloud Computing

## SELECTED COURSE PROJECTS

**Twitter Data Analysis** Apr 2022  
*Java · Spark · MySQL · terraform · helm · kOPs · k8s · AWS ECR, EMR, EKS, EC2, S3*

- Constructed endpoint which can digest over 20K request per second for DB data retrieval by AWS load balancer, MySQL connection pool, and non-blocking web framework.
- Cleaned and aggregated 1TB raw data to pipe into MySQL database within 20GB by Spark and AWS EMR.
- Charted automatic script to set up self-contained services by kOPs, terraform, helm.