

Yicheng (Marco), Huang

Email : yhuang3@andrew.cmu.edu, Mobile: (412) 9616329

LinkedIn : <https://www.linkedin.com/in/yicheng-marco-huang-85473563/>

OBJECTIVE

Seeking a full-time opportunity as software engineer to develop cloud application and robust system application

EDUCATION

Carnegie Mellon University

Sep 2016 – Mar 2018

Master of Science in Information Technology (Information Networking Institute)

Current GPA: 3.80 / 4.0

The Hong Kong Polytechnic University (Hong Kong)

Sep 2009 – Aug 2014

Bachelor of Engineering (HONORS) in Electronic and Information Engineering

First Class Honors with GPA for Award: 3.86 / 4.0

TECHNICAL PROFILE

Java, C, Cloud platform Development Experience, MySQL, HBase, Container Technology, Hadoop

SELECTED PROJECT EXPERIENCE

Cloud Computing Projects (All projects were budget restrained): Jan 2017 – Apr 2017

- Twitter Analytics Web Service {HBase, MySQL, Java, GCP, AWS, Azure, Undertow, Hadoop, Load Balance}
 - Stored Graph Relationship data in MySQL and programmed to retrieve common relationships between users with optimized schema, algorithm, caching and multi-thread programming
- Social Networking Timeline with Heterogeneous Backbends {Java, AWS, MySQL, HBase, MongoDB}
 - Designed ETL code to load data into MySQL, HBase and MongoDB and developed backend Java program to perform query task on all those databases
- Parallel Processing of large datasets project {MapReduce, Spark, Scala}
 - Designed a MapReduce batch processing job to build N-gram Models and built a Probabilistic Language Model with Hbase and stored the language model into Redis
 - Built a Text Predictor Application by preprocessed Twitter data using Scala and implemented PageRank algorithm
- Cloud Multi Container Micro Service project {GCP, AWS, Azure Java, Maven, Docker and Kubernetes}
 - Developed "Online Python Code and SQL query Execution Engine" by designed background Java and Python program, customized Docker images and deployed Kubernetes cluster across GCP, AWS and Azure platform

Computer System Project:

May 2017 - Aug 2017

- General Malloc Implementation {C}
 - Developed customized version of "malloc", "free", "calloc", "realloc" functions
 - Achieved 19000 kilo instruction operations per second with 74.2% utilization rate
- Multi-threading HTTP caching proxy server
 - Developed a multi-threading HTTP GET request proxy server with 1 MB caching

Wireless Security Projects:

Jun 2017 – July 2017

- Assessing the security of Echo Dot with other IoT devices
 - Discovered side channel in Echo Dot Alexa and Philips Hue to reveal user activities pattern and proposed solutions to fix the private leakage problem

WORK EXPERIENCE

Daolab

Aug 2015 – Mar 2016

Software Engineer, Video Streaming and Encoding Research and Development Team

- {C++, X.265 HEVC, AAC, HLS} Implemented a distributed prototype to encode and compress video and audio based on HEVC codec and AAC codec by utilizing several low-end servers to achieve 1080p http live streaming

ARUP

IT Consultant

Jul 2014 – Aug 2015

- Designed tender document for various IT systems including: Data Network, Wireless Network and Security System.