

Haohan (Carrie) Zhang

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EDUCATION

Carnegie Mellon University, School of Computer Science

Master of Information and Technology Strategy; GPA: 3.73/4.00

Pittsburgh, PA

Aug 2018 - Dec 2019

Fudan University, School of Computer Science

Bachelor of Science; Overall GPA: 3.63/4.00; Major GPA: 3.89/4.00

Shanghai, China

Aug 2014 - Jun 2018

SKILLS

- **Programming Languages:** Python, Java, C, SQL, C++, Bash, JavaScript, Scala, Assembly, R, PHP, HTML, XML, CSS
- **Tools and Libraries:** Git, AWS, Node.js, Express, Django, Java RMI, Docker, REST, Elastic Stack, Splunk, Keras, Scikit-Learn, Selenium, Unix

EXPERIENCE

Carnegie Mellon University

Teaching Assistant, Machine Learning Department

Pittsburgh, PA

Aug 2019 - Present

- Assisted Prof. Barnabas Póczos in the graduate level class *10-745 Scalability in Machine Learning*.

Highmark Inc.

Summer Curricular Intern, Capstone Project at Carnegie Mellon University

Pittsburgh, PA

May 2019 - Aug 2019

- Developed a full-stack vulnerability data aggregation and enrichment system with Node.js, XML, and Splunk, which can support concurrent, real-time data enrichment, visualization, analysis, and monitoring for vulnerability log files.
- Deployed continuous integration, automated unit testing, performance testing, and workflow testing using Mocha, Chai, Splunk-SDK, and Selenium. Supported average response time of 8.73s for 60 concurrent users with 160,000+ records.

YITU Technology

Research and Development Intern, Computer Vision Team

Shanghai, China

Apr 2018 - Jul 2018

- Applied Mixup as a data augmentation method for image classification tasks, increased accuracy by 0.5-0.7% on 28 datasets, reached 96.2% accuracy on Cifar-10 dataset.
- Implemented and added Inception series algorithms into TF Autobot; accomplished regression tests on TF Autobot. Built a speed testing tool for Caffe, TensorRT model on CPU/GPU respectively in C++.

eBay Inc.

Software Engineer Intern, eBay Operation

Shanghai, China

Nov 2017 - Mar 2018

- Revamped an online intelligent operation platform for DevOps department, used Django as Python web-framework and Vue as JavaScript framework.
- Built a Scala project of back-end algorithms including unsupervised learning models and abnormal detection on the result of each pool (server) parameter's feature extraction, applying Apache Spark for distributed computing.

University of California, Irvine

Summer Research and Development Intern, ISG Group, School of Computer Science

Irvine, CA

Jul 2017 - Sep 2017

- Built part of middleware on top of a big data management and visualization system, Cloudberry, mapped front-end query to MySQL and PostgreSQL query, developed back-end translator in Scala.
- Wrote the connector of middleware to databases which sent and received queries and transferred datatypes for semi-structured data models. Wrote unit test cases with ScalaTest.

PROJECTS

AWS Based Data-Intensive Elastic Distributed Cloud Server

Apr 2019 - Jul 2019

- Designed and built a 4-tier, auto-scaling, e-commerce web service using Java, optimized with central queuing and caching.
- Deployed a Node.js server on AWS EC2 with ELB and RDS. Supported 5000 concurrent users with avg latency of 2.5s.

File Caching Distributed System and Remote File Operations System

Jan 2019 - Apr 2019

- Built an RPC system to allow concurrent remote file operations in C.
- Designed and implemented a distributed system for file caching using Java RMI and Java threading.
- Developed a caching proxy, ensured open-close semantics on file access, robustly handled multiple concurrent clients.
- Implemented two-phase commit using logging and locks for group photo collage.

QryEval: A Text-Based Search Engine

Jan 2019 - Apr 2019

- Built a text-search engine with Apache Lucene in Java, supporting Ranked/Unranked Boolean, Okapi BM25, Indri.
- Implemented SVM re-ranking, query expansion, intent-aware diversified search, and forward indexing.