Siang Gao

http://gaosa.me/

412-638-8568
siangg@andrew.cmu.edu

EDUCATION

Carnegie Mellon University   Pittsburgh, PA
Master of Computational Data Science, School of Computer Science; GPA: 4.00/4.00   *Aug 2018 – Dec 2019*
- Selected Coursework: Cloud Computing, Distributed Systems, Storage Systems, Search Engines, Machine Learning

Peking University   Beijing, China
Bachelor of Science in Computer Science and Technology, School of EECS; GPA: 3.64/4.00   *Sep 2014 – Jul 2018*

EXPERIENCE

LinkedIn   Sunnyvale, CA
Software Engineer Intern   *May 2019 – Aug 2019*
- Improved Groups product across front end, middle tier and back end, modified RESTful APIs and multiproducts in Java, tested code with Mockito and curl calls, and added configurations to Anet and Espresso database
- Proposed different solutions to problems, discussed and coordinated with multiple teams for implementation

Carnegie Mellon University   Pittsburgh, PA
Graduate Teaching Assistant   *Jan 2019 – May 2019*
- Refined learning experience on course website with iframe, vue.js and Django, tracked errors with Sentry, and recorded scrolling behavors on code review website by modifying React components
- Held office hours, helped students debug code and answered technical questions

Microsoft   Beijing, China
Software Engineer Intern   *Jul 2017 – Oct 2017; May 2018 – Jul 2018*
- Incorporated external React components into an education website, and designed backend APIs with Swagger&Go
- Developed a single-page application for traditional Chinese medicine teaching with Vue.js
- Built a Django website for improving Bing's instant answers, performed big data analysis on AEther and Cosmos, and generated high-quality Q&A pairs for question answering with machine learning and XPath

Peking University   Beijing, China
Undergraduate Research Assistant   *Nov 2015 – Apr 2018*
- Researched on data stream processing, network traffic measurement and big data analysis, designed and conducted several research projects on Bloom filters and Sketches
- Supervised other students in paper writing, experiment designing, coding and figure plotting

SenseTime   Beijing, China
iOS Developer Intern   *Jun 2016 – Sep 2016*
- Developed iOS applications for face and gesture recognition using AVFoundation with Swift and Objective-C

PROJECTS

QryEval: Search engine for structured queries written in Java, supporting ranking algorithms include Unranked/Ranked Boolean, Indri, and BM25, with integration of pseudo relevance feedback, learning to rank, and diversification

Twitter Analytics Web Service: High-performance, fault-tolerant web service written in Java and Python, built on AWS and Lightsail, having HBase and MySQL as back end, whose data are loaded through MapReduce ETL

Two-phase Commit: Distributed system implementing two-phase commit protocol in Java with failure recovery

CloudFS: Cloud-backed local file system in C++ with file deduplication, snapshot operations and caching mechanism

PUBLICATIONS

- Tong Yang, Siang Gao, Zhouyi Sun, Yufei Wang, Yulong Shen, and Xiaoming Li. "Diamond Sketch: Accurate Per-flow Measurement for Big Streaming Data." IEEE Transactions on Parallel and Distributed Systems (2019).
- Zhouyi Sun, Siang Gao, *et al.* "Magic Cube Bloom Filter: Answering Membership Queries for Multiple Sets." In 2019 IEEE International Conference on Big Data and Smart Computing (BigComp), pp. 1-8. IEEE, 2019.

SKILLS

Languages: Proficient in C/C++, Python; Familiar with Java, JavaScript, Swift, SQL

Technologies: React, Vue.js, Django, AWS, GCP, Azure, LaTeX, Git, HTML, HDFS, CSS, Mockito, AEther