Guozhen She

GitHub: github.com/hazelnutsgz   Email:gzshe15@fudan.edu.cn   HomePage: https://sgzhazelnut.github.io/

EDUCATION

Fudan University, Shanghai, China
Bachelor of Computer Science   expected in 07.2020
GPA (overall): **3.55/4.0**; GRE:**331**; TOEFL(**101**)

PUBLICATION

LBSLab: A User Data Collection System in Mobile Environments
- Qingyuan Gong, Xinlei He, Qinge Xie, Shihan Lin, **Guozhen She**, Ruiyu Fang, Rui Han, Yang Chen, Yu Xiao, Xiaoming Fu, Xin Wang
- Proc. of Workshop MHC, **UbiComp** 2018

RESEARCH EXPERIENCES

University of Illinois Urbana-Champaign Research Intern   July.2019 - Oct.2019
Supervised by Dr. **Tianyin Xu**
- **Linux Kernel Support for High-throughput Container**
  - ■ Wrote Linux kernel module and retrofitted the source code of **Linux kernel** and **Docker** to improve the performance of containerized applications.
  - ■ Investigated the implementation of SELinux, seccomp, cgroup to seek the opportunity of enhancement.

Microsoft Research Asia, Network Research Group | Research Intern   Jan.2019-July.2019
Supervised by Dr. **Yongqiang Xiong**
- Bot Detection System for Azure Cloud Service
  - ■ Implemented **the preprocessing pipeline** of daily network log data fetching from Bing, concurrently parsing the HTTP messages leveraging **goroutines** into sessions hosted on a distributed file system. Implemented a red-black tree-liked mapping structure to support the **range query** for IP address.
  - ■ Built a **graph-based** deep learning model to detect bot behavior by aggregating requests into sessions, reaching **94.3%** accuracy on labeled Bing log data. Optimized the IO performance for training in using TFRecord. Support memory sharing mechanism to overcome python GIL at parallel training.
  - ■ Contributed patches to DFC, and built a C++/C# parsing library supporting multiple-string matching with heterogeneous regex backends, and is finally delivered to Azure team.

Fudan University, Mobile Systems and Networking Group   April.2017-
Supervised by Dr. **Yang Chen**
- Perfing Azure Functions (Azure Serverless Platform)
  - ■ Built the toolkit to evaluate the metrics of serverless computing, and reported bugs to Azure.
  - ■ Investigated the event-driven, **replay** mechanism of Azure Function(by source code in C#)
  - ■ Reasoned out how **coroutine** in CLR influences the concurrent performance in Azure Function.
- Social Network Analysis (Google Scholar & LinkedIn)
  - ■ Built the **distributed** crawling service to fetch profiles from LinkedIn and Google Scholar.
  - ■ Detection of the **misconfigured** profile on Google Scholar, which is submitted to **TKDE**.
- Qingyun Go: A User Data Collection System in Mobile Environment
  - ■ Built a location-based mobile app with fully HTTPS support. To reduce the latency, the **asynchronous** programming pattern was introduced to the whole front end. The client-based cache is leveraged to reduce the network traffic. This work is published at Workshop MHC Ubicomp.
- Real-time Message Monitoring System(WeChat)
  - ■ Hacking the communication protocol of a popular chat app, built a multiple-process web service **mocking** the WeChat client. then store the intercepted messages(video, text, audio) in the MongoDB.

Intel Asia-Pacific R&D, OTC | Software Engineer Intern   Aug.2018-Oct.2018
Supervised by Dr. **Cindy Xie**
- Contributed patches to **OpenStack** Community, and helped with deployment on bare-metal devices.
- Built a **rule-based** command-line tool migrating codebase from python2 to python3.

SKILLS

Programming Language: Python, Java, Golang, C, C++, JavaScript, Rust(newbie), Verilog(newbie)
Tools: LaTeX, Vim, Git, Docker**,** GNU Toolchain, KVM, KGDB,D3.js. Kernel Programming, PyTorch,

SELECTED AWARDS

2019 Denghui Program (Undergraduate Research Opportunities Program)
2018 Second Prize UnderGraduate Mathematic Model Contest in China
2017 Second Class Scholarship for Outstanding Students at Fudan University
2016 15th AEARU (Association of East Asian Research Universities) Marathon