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**)

SKILLS

Programming Language: Python, Java, Golang, C, C++, JavaScript, Rust(newbie), Verilog(newbie)
Framework & Library: D3.js, Kernel Programming, Tensorflow, PyTorch, C++ STL
Tools: LaTeX, Vim, Git, Docker**,** GNU Toolchain, KVM, KGDB
Soft Skills: Open Source Engagement, Ask Smart Questions, Networking

ACADEMIC EXPERIENCES

University of Illinois Urbana-Champaign Research Intern   July.2019 - Oct.2019
Supervised by **Tianyin Xu**
- **Linux Kernel Support for High-throughput Container**
  - ■ Wrote linux kernel module and retrofitted the source code of kernel and Docker to improve the performance of container in different cloud services.
  - ■ Investigated the implementation of linux security module.

Fudan University, Mobile Systems And Networking Group   April.2017-
Supervised by **Yang Chen**
- Perf Azure Serverless Computing
  - ■ Built the tool to evaluate the metrics of serverless computing. (Azure)
  - ■ Investigated the fault tolerance mechanism at Azure Function(C#)
- Social Network Analysis (Google Scholar & LinkedIn)
  - ■ Wrote the python script to crawl the profile data from LinkedIn and Google Scholar.
  - ■ Utilized the deep learning techniques to detect the mis-configured profile of the Google Scholar.
- Qingyun Go: A User Data Collection System in Mobile Environment
  - ■ Built a **geo-based** social App. The communication between backend and frontend is hosted on HTTPS protocol based on RESTful API. The backend is FastCGI integrated with C++ code, while the frontend is a javascript runtime with asynchronous API. Then developed some streaming analytic tools to monitor the status of service and the behavior of users.
- Message Monitoring System for WeChat
  - ■ With a hacked WeChat communication protocol, build a multiple-process web service mocking the WeChat client request & store the intercepted messages(video, text, audio).

INDUSTRY EXPERIENCES

Microsoft Research Asia, System and Network Group | Research Intern   Jan.2019-July.2019
Supervised by **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 in the internal service.
  - ■ Built a **CNN-based** model to detect bot behavior by classifying the images generated, reaching **94.3%** accuracy on labeled Bing log data. Optimized the IO performance in using TFRecord.
  - ■ Submitted patches to hyperscan, and built a C++/C# parsing library supporting multiple string match with heterogeneous regex backends, and delivered it to Azure team.

Intel Asia-Pacific R&D, Open Source Technology Center | SDE Intern
Aug.2018-Nov.2018
- Committed code to OpenStack, and helped with deploying on bare metal devices.
- Built a **rule-based** command line tool which migrates code from python2 to python3.
- Implemented a graph-based algorithm for **package dependency analysis** for the python file in the project.

PUBLICATION

BotGraph: Web Bot Detection Based on Sitemap
- Yang Luo, **Guozhen She** , Peng Cheng and Yongqiang Xiong (**https://arxiv.org/pdf/1903.08074.pdf**)

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