

# Guozhen She

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## EDUCATION

**Fudan University**, Shanghai, China 2015.9 - Present  
**Bachelor of Computer Science** (expected in 07.2020, **one year delay** because of a surgery)  
GPA (overall): **3.55/4.0**; Ranking: **21/117(17.9%)**  
**Body**: Computer Architecture(A)| Computer Network(A-)|Computer System(A)|Database Implementation(A-)|Operating System(B+)  
**Brain**: Data Structure(B+)|Distributed System(A)|Linear Algebra(A)  
**Mouth**: C Programming(A)|C++ Programming(A-)|Web Development(A)  
**Metaphysics**: Neural Network and Deep Learning(A-)

## SKILLS

**Programming Language**: Python, Java, Golang, C, C++, JavaScript, MATLAB(wanderer), Rust(dabbler), Haskell  
**Framework & Library**: Tornado(Python), D3.js(JS), Node.js(V8), \*nix System Call(C), Tensorflow, PyTorch, STL  
**Tools**: LaTeX, Git, Docker, GNU toolchain  
**Soft Skills**: Storytelling, Networking, Puns & Jokes, Information Retrieval, Open Source Engagement,

## SELECTED PROJECTS

**Multiple Pattern Text Matching Tool** (<https://github.com/hazelnutsgz/NaiveACAutomation>)  
Implement the **Aho–Corasick** automation(Tries with failed pointers), facilitating the text matching in multiple pattern.  
**Interactive Visualization of Coauthor Affiliation**(<https://github.com/hazelnutsgz/NaiveScholarMap>)  
Construct the co-author affiliation graph based on yearly data crawling from google scholar, then build an interactive web service by D3.js library, for comparison and analysis of co-author affiliations in different years.  
**Monitoring Service of WeChat Group**(<https://github.com/DaShiLar/Naive-WeChat-Monitor>)  
Build a **monitoring** backend service for all WeChat groups of the user, which captures the real-time chatting information(video, text, voice), and stores them to database and filesystem in backend. Also a front-end web UI is provided to users for authorization and inspection. The system is implemented in a **multi-processes** architecture for **the isolation** of different users and utilization of multi-cores on backend server.

## INDUSTRY EXPERIENCES

**Microsoft Research Asia**, System and Network Group | Research Intern Jan.2019-  
• Real-time Bot Detection System for Azure Cloud Service

- Implemented a Golang web service to **build the preprocessing pipeline** of daily network log data(8,000,000) from Bing, which parse the raw log concurrently leveraging **goroutines** into heterogeneous files hosted on a distributed file system.
- Based on that, provided an analytic service(React, D3.js) for visualizing and understanding data. For conservation of memory footprint on VM, the data was **fetchd on demand** and cached as the data structures in memory, guaranteeing the data at **hotspot** would stay longer in memory to accelerate the analytic efficiency.
- Implemented the algorithm to generate the behavior-based images for each request session, then develop a **CNN-based** model by PyTorch&Tensorflow to detect bot behavior by classifying the images generated, which reached **94.3%** accuracy on labeled Bing log data. Then optimized **IO performance** for the production environment.

**Intel Asia-Pacific R&D**, Open Source Technology Center | SDE Intern Aug.2018-Nov.2018  
• **Contributed code** to [StarlingX](#)(OpenStack Foundation), assisted in deploying the StarlingX on bare-metal devices.  
• Built a **rule-based** command line tool which migrate code from python2 to python3.  
• Assisted the colleagues to setup the **compiling farm** based on K8S for building of StarlingX project.  
• Implemented a static graph-based algorithm for **package dependency analysis** in the project.  
**Wish(ContextLogic)** | SDE Intern Jan.2018-Apr.2018  
• Developed an meta information adjustment service, using Tornado framework at backend, and backbone.js at front end.  
• Built an adaptive notification service for accounts out of credits. Based on that, designed an algorithm to **spot zombie users**.  
• Built a **channel search service** equipped with multiple filters to assist users to select the proper channel on their own conditions.

## ACADEMIC EXPERIENCES

**Fudan University**, Mobile Systems And Networking Group, Advisor: Prof. **Yang Chen** April.2017-  
• **LinkedIn** website:

- Built a **cookie-based** crawling system to scraping profiles retaining, which **imitate** normal user behavior for anti-crawling.
- Implemented automatic script to **expand the personal LinkedIn connections** based on LinkedIn Recommendation.
- Crawled the profiles of connections **concurrently** utilizing multiple mock accounts at the crawling system, then wrote an **error-tolerant** parser to generate JSON-like profile for each profile URL.

• **Google Scholar** website

- Crawled the scholar’s profile, integrated with **anti-captcha** service. Detected the untruthful profile by machine learning.
- Crawled data from MS Academic, DBLP, Google Scholar, build the **heterogeneous graph** containing both authors and papers for given conferences in different year. Utilized **Graph Convolution Network(GCN)** to evaluate the conference.

• [Qingyun Go](#)

- 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.

## MISCELLANY

**Interest**: Archeology (on Computer Science), Soccer(DM), **Road Cycling**(Individual Time Trial, Mountain Climbing)  
**Personal Page**: <https://sgzhazelnut.github.io/terminal/>, GRE:331