Bingpeng Xiang

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EDUCATION

New York University, Tandon School of Engineering   Aug. 2018 - May. 2020
Master's in Computer Science   GPA: 3.83 / 4.0
Teaching Assistant for CS 6083 Principles of Database Systems

Tianjin University of Technology   Sept. 2014 - Jul. 2018
Bachelor of Science in Information and Computing Science   GPA: 3.8 / 4.5

EXPERIENCE

Software Engineering Intern   June. 2019 - Aug. 2019
Tencent, CSIG, Platform Tool Team   Shenzhen, China
- Optimize the worker's environment of the CI platform to support the customized languages, images, and OS.
- Offered CI integrated supported for the Tencent Cloud Virtual Machine Team, shortening the deployed time from 4 hours to 5 mins.
- Developed sign services plugin which used for QQ video and developed iOS sign services for all Apps in Tencent.

Software Engineering Intern   Apr. 2018 - Jun. 2018
Yuantek, Traffic Analysis Team   Beijing, China
- Deployed two python programs which were part of firewall project with the feature of auto-restarting on the crash, full record logging, running 24/7 and offering technical support.
- Rewrote C-based program that extracted IP field from proprietary protocol packet in Python which decreased the crash rate about 30% and reduced the code size about 50%. Besides, designed a Telnet command interface to provide a real-time data monitor with features of command completion, command history and subcommand.
- Developed a program to extract URLs matching the specific pattern from email. And completed a library to transfer TCP based packets with partner companies.
- Implemented a packet manipulation library for internal TLV format data communication protocols using custom metaclasses of Python, providing a unified interface to manually define every aspect of packets, dissect packets by parsing raw packet bytes and send/receive packets.

PROJECTS

Cloud DBMS of IoT for Smart Agriculture   Mar. 2018 - May. 2018
- Designed IoT data management system including desktop App, server programs and virtual sensors which supported real-time data transfer and flexible sensor control.
- Built RESTful APIs using Flask which provided authentication, filter, CRUD and RPC.
- Designed special description files which defined the interface of sensors to improve extensibility, stored the current status and assigned the callback of specific events so as to increase control granularity.
- Developed a desktop app in Qt and virtual devices in Python to test the whole lifecycle including sending/receiving IoT data, remote sensor control, scheduling event and registering new devices.

Oingo   Sep. 2018 - Dec. 2018
- Developed a website using PHP Laravel that users can publish notes with certain locations, time range or tag and can receive these notes based on their custom filters, also supporting comments, adding friends, search by keyword, location.
- Designed database schema meeting 3NF and used GeoHash to store location to increase query efficiency. The database was deployed on AWS.
- Implemented compound filter supporting filtering by location, keyword, time range, tag, relationship, permission or personal status. The filter could also combine with boolean logic which could use for search several location or time in a single search.

SKILLS

Programming Languages: Python, JAVA, C/C++, PHP, SQL
Tools: Git, Pycharm, MySQL, MATLAB, Bash, Docker, Markdown
Language Skills: Chinese(Mandarin), English