Yuqi(Gavin) Tao

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SUMMARY

Computer Science major student with 1+ years of experience in Java backend development. Developed multiple features for Huawei's IoT Connected Vehicle Platform. Completed school projects in web development including an internet shopping website and a search engine.

EDUCATION

- **Northeastern University** — San Jose, CA
  Master of Science in Computer Science (Anticipated Graduation Date: June 2021) — *Aug. 2019 – Now*

- **University of California, Irvine** — Irvine, CA
  Bachelor of Science in Computer Science — *Sept. 2014 – June 2018*

WORK EXPERIENCE

- **Huawei Technologies** — Shenzhen, China
  Software Engineer – Java IoT Developer — *Nov. 2018 - June 2019*
  - **RESTful Vehicle Message Reporting Service**: ECall message is a specific kind of message reported by vehicles in emergency situations in Europe. Designed and implemented RESTful service with Spring Boot for receiving eCall message reported by vehicles. Adapted to dynamic URLs with regular expression. Parsed JSON from request body and produce corresponding data on Kafka for other elements on Huawei's Connected Vehicle Platform.
  - **Vehicle Remote Control over MQTT**: MQTT is a lightweight publish-subscribe-based messaging protocol. Implemented the feature of waking up the vehicle IoT device via SMS before creating MQTT connection. Provided APIs for sending six different remote control commands to the vehicles. Implemented topic subscription and used Kafka to forward response messages from vehicle to other elements on Huawei's Connected Vehicle Platform. Ensured functionality on multiple server nodes by registering routing information on MongoDB.
  - **OSGi Hot Deployment Adaption**: Designed and implemented the aforementioned services as OSGi bundles for the purpose of hot deployment. Successfully implemented these two features as low coupling plugins that can be installed, removed, run or stopped independently.

SCHOOL PROJECTS

- **Internet Shopping Website – Java**: Developed multiple functions including login/logout and shopping cart with Java Servlets and Sessions. Used JDBC and MySQL to store user info and product info. Implemented features of auto-completion search and popup window via Ajax.
- **Distributed Web Crawler and Search Engine – Python**: Designed and implemented a single web crawler within a distributed crawler system to crawl among UC Irvine's website. Applied NLP techniques to parse the corpus of the crawled web pages. Sorted the crawled data with tf-idf algorithm and stored it in MongoDB. Built a search engine website with Python Flask for querying from the crawled data.
- **Minimal Unix Shell – Bash & C++**: Developed a minimal Unix-like shell that can take various bash commands. Implemented a command line version trash bin.

SKILLS

- **Programming Languages**: Java(proficient), SQL(proficient), Python(moderate), Bash(moderate), C++(beginner), JSON, XML
- **Technologies**: Kafka, OSGi(Karaf), MQTT(Paho), Kubernetes, RESTful, RPC, MVC, log4j, Mockito
- **Software and Tools**: Github, Gitlab, Jenkins, Maven, Git, tcpdump, wireshark, postman, IntelliJ, PyCharm
- **Operating Systems**: Linux Server(4 years of experience in hosting proxy service and cloud storage service), Linux Desktop(3 years of daily usage experience on Manjaro & OpenSUSE), macOS, Windows.