Yijun Yan

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Summary

- A communicative team player who is passionate about full-stack or backend development.
- Seeking a full-time position for 2021 (expected to graduate in Mar 2021).

Education

University of California San Diego (UCSD), La Jolla, USA   09/2019 – 03/2021
M.S. in Computer Engineering (CE)

University of Michigan (UMich), Ann Arbor, USA   09/2017 – 05/2019
B.S. in Computer Engineering (CE)

Shanghai Jiao Tong University (SJTU), Shanghai, China   09/2015 – 08/2019
B.S. in Electrical and Computer Engineering (ECE)

Technical Skills

- **Programming Languages:** C++, Python, Java, Javascript, C, CUDA, Haskell, SQL, Julia, MATLAB, HTML, Shell.
- **Frameworks & Tools:** Spring MVC, React JS, Activiti, Guice, AWS, Mockito, Docker, Bootstrap, Git, Maven.

Work Experience

Software Development Engineer Intern, Amazon.com Inc.   06/2020 – 09/2020

Accomplished an API automating the process of Alexa Voice Service bounty payment submission to Amazon royalty payment system, which includes publishing payments, listening PUE (payment update event) notification messages, retrieving PUEs and finalizing payment buckets. **[Java, Javascipt] [AWS, SNS, SQS, S3, Guice, Spring MVC, React]**

- Built a publisher sending payments through SNS topic to the SQS specified by Amazon royalty payment system.
- Created SQSs to subscribe PUE notification messages from the SNSs in Amazon royalty payment system.
- Developed a listener to filter SQS messages and parse messages to get S3 bucket IDs where PUE files are stored.
- Implemented an S3 chunkstore reader filtering PUE ION files and an ION file parser to extract payment bucket IDs.
- Constructed a finalizer by sending messages to the specified SQS in order to notify bucket finalization requests.
- Designed UI pages and RESTful APIs using Spring MVC, React and Blueprint for the new backend API usage.

Professional Experience & Course Projects

Array-based CKY Parser for English   05/2020 – 06/2020

Individual   Supervisor: Prof. Taylor Berg-Kirkpatrick (UCSD)

- Built an annotator/binarizer in Java that takes raw trees, does parent/grandparent annotation and Markovization.
- Implemented Cocke–Kasami-Younger (CKY) algorithm to compute Viterbi trees.

Wireless E-paper Room Sign & Door Locking System   02/2020 – 03/2020

Team Leader   Supervisor: Prof. Tajana Simunic Rosing (UCSD)

- Developed a digital room sign system showing schedule on e-paper display and controlling locks based on RFID.
- Deployed a Python App operating Google Calendar APIs to an AWS server to communicate data with Raspberry Pi.
- Constructed a client on Raspberry Pi controlling the Arduino hardware system including the RFID sensor and e-paper.

Multiple Tenancy Support of Business Process Management Platform   05/2019 – 08/2019

Team Member   Supervisor: Prof. Yunlong Guo (SJTU)   Sponsors: Alen Ren (VMware), Henry Chen (VMware)

- Developed a Java package extending the Activiti engine to better support multiple tenancy between all agent types and reliable isolation among similar user groups across different tenants.
- Dissected Activiti engine source codes and followed the native Java command pattern design mode.

Simulating OuterSpace Matrix Multiplication with GPGPU-SIM   06/2018 – 09/2018

Research Assistant   Supervisor: Prof. Ronald G. Dreslinski (Umich - CADRE Lab)

- Simulated OuterSpace's performance with different GPU hardware architectures using GPGPU-sim.
- Responsible for C++/CUDA4 coding and shell scripting for parallel programming.