YIWEI ZHANG

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SUMMARY

Enthusiastic, energetic master candidate of computer science, with 4 years experience of software development. Expert in web development, database, machine learning. Looking for 2020 SDE/PM internship.

EDUCATION

Northwestern University, Evanston, IL Sep 2019 - Dec 2020
Master of Computer Science GPA: 4.00

University of Michigan, Ann Arbor, MI Sep 2017 - Apr 2019
Bachelor of Computer Science GPA: 3.69

Shanghai Jiao Tong University, Shanghai Sep 2015 - Aug 2019
Bachelor of Electrical and Computer Engineering GPA: 3.40

AWARDS

University Honors at University of Michigan Dec 2017, Dec 2018, May 2019

SKILLS

Languages Java, Python, C/C++, JavaScript, CSS, HTML, Shell, Swift, R
Tools and Frameworks MySQL, MongoDB, React, Hadoop, PyTorch, TensorFlow, Angular, Spring, Node.js

WORK EXPERIENCE

Software Engineer Intern, Cisco Systems, Inc Shanghai, China
Natural Language Processing for bug classification (Python, PyTorch) May 2019 - Sep 2019

- Built a search engine based on natural language processing, which discovered top 10 broken components in customers' router products, thus saving engineers' time and work.
- Standardized 100,000 data by correcting spellings, removing syntax inconsistency, separating combined words.
- Constructed a keyword dictionary for router products by extracting key features from customers' report files, which covered 95% of the target features.
- Provided useful pretrained knowledge by balancing data, integrating contextual information, tuning different machine learning models using PyTorch, which improved the classification accuracy of 500 classes to 90%.
- Reduced the data processing time by multi-processing 6000 files concurrently.

Research Assistant, University of Michigan Ann Arbor, MI
Dashboard for a Large Distributed System (C++, JavaScript) May 2018 - Aug 2018

- Designed a dashboard displaying metrics of the distributed system, which was a simulation of infinite memory, in order to support developers to identify bugs.
- Collected data about machines' latency, throughput, memory usage and connections using C++ socket.
- Displayed the system information in real time and enabled user interaction using JavaScript and Node.js.
- Resolved the instability issue of the GUI server by deleting the outdated information in MySQL every 300ms.
- Made the product more user-friendly by writing shell scripts to start distributed system and GUI server automatically.

PROJECT EXPERIENCE

Software Developer, University of Michigan Ann Arbor, MI
Image stitching for churches (Python, CV2) Nov 2018 - Dec 2018

- Built a data pipeline which can stitch two images of a church into a continuous image, and found the name of the church.
- Extracted feature points from the image using Harris Corner Detection, non-maximum suppression.
- Matched the features points from each images precisely using HOG algorithm.
- Identified the name of the church by crawling images, and matched the most similar image using SIFT.

Software Developer, University of Michigan Ann Arbor, MI
Instagram Website (Python, HTML, JavaScript, React) Mar 2018 - May 2018

- Built a Instagram website which supported users to browse posts, edit posts, like posts, follow friends in real time.
- Rendered frontend using React in order to make client side processing more efficient.
- Implemented session cookies and SHA256 to realize user login authentication and information security in MySQL.
- Constructed the backend using Flask and designed REST API, which connected different services together.