Xianjie Zheng

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Education

Carnegie Mellon University   **Pittsburgh, PA**
Master of Science in Electrical and Computer Engineering   Expected Dec 2021
   Coursework: Foundations of Computer Systems, Machine Learning (ongoing), Pattern Recognition (ongoing)

University of Wisconsin-Madison   **Madison, WI**
Bachelor of Science: double major in Computer Sciences and Applied Mathematics   May 2020
   Dean's List Awards: Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019   **GPA: 3.85/4.0**
   Coursework: Algorithms, Artificial Intelligence, Cryptography, Graphics, Networks, Operating Systems
       Optimization, User Interface, Linear Algebra, Combinatorics, Stochastic Processes

Skills

- Programming Languages: Java, C, Python, MATLAB, Julia, Bash, C++, HTML, JavaScript
- Technologies: Ajax, Docker, Django, GitHub, GDB, Reactjs, React Native

Work Experience

Rokid Corporation Ltd.   **San Carlos, CA**
Algorithm Intern   May 2019 - Aug 2019
- Investigated an existing third-party API in AR field and documented its function features to apply in future cases.
- Integrated the API into Android demo application using Java and benchmarked its performance with other solutions.
- Built 10+ ready-to-use Docker images with different configuration environment using Dockerfile and managed them within a docker registry image on the private server.
- Deployed existing VLAD algorithm onto Docker swarm and improved its' efficiency by 10% by implementing its key KMeans algorithm using Pyspark framework.

COSMOS Undergraduate Research   **Madison, WI**
Volunteer Research Assistant   Feb 2019 - Apr 2019
- Programmed to pinpoint different sections within pdf files and visualized them with bounding boxes using python.
- Conducted research on different deep learning models (ConvNets, RNN, etc.) for text classification.

UW – Madison Computer Science Department   **Madison, WI**
Peer Mentor of CS 537(Operating Systems)   Jan 2019 - May 2019
- Held office hours twice a week to solve conceptual questions and coding problems with about 50 students.
- Assisted Professor Shivaram Venkataraman and other peer mentors to prepare and organize course materials.

Academic Projects

RumbleSpace - Nano Blogging Platform (Python, JS) - **CMU**   Fall 2020
- Developed a nano blogging site using Django framework and deployed the application on AWS EC2.
- Implemented Django Models to store posts/comments and user profile information and managed them with Mysql.
- Used Ajax to refresh page automatically when new posts/comments are created.

Concurrent Caching Proxy Server Design (C) - **CMU**   Summer 2020
- Implemented an HTTP/TCP web proxy server that process real-world client request concurrently.
- Fulfilled thread safety and avoided race conditions by utilizing locks and semaphores.
- Added key-value cache that followed LRU policy to improve performance by storing recent web objects.

Course Scheduler Web Application (ReactJs) **- UW-Madison**   Fall 2019
- Developed the course scheduler web application available at xzheng97.github.io/course_scheduler/.
- Designed structures and algorithms to filter courses by attributes and generate schedules for selected courses.

Linux make Command (C) **- UW-Madison**   Fall 2018
- Built a program that resembles Linux make system command from scratch; took Makefile as input and executed each command consecutively and handled any encountered exceptions.
- Utilized linked representation of graph structure to store commands in Makefile and traversed it to find the executing sequence, while detecting any possible cycle at the same time using Topological Sort algorithm.

Optimal Portfolio Assignment (Julia) **- UW-Madison**   Spring 2019
- Led a team of three and built three models to perform stock portfolio optimization with JuMP.
- Trained models with real S&P 500 data and compared the results of different models.