

Tianren(Silver) Zhang

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Education

University of California, Irvine

B.S • Computer Engineering • Graduation Date: June 2019 • GPA=3.223

Skills

Language: Python, Java, C++, C, Javascript, Golang, Solidity, SQL;

Technologies/Tools: Django, MySQL, MongoDB, Redis, Hadoop, Kafka, Ethereum, Docker, React

Experience

Student Researcher

Institute of Future Health.

June - November 2018

- Implemented **background voice service** system and **text analysis** in a food journaling **Mobile tool**;
- Used **Realtime Database** on **Firebase** to dynamically store the food information and personal data;
- Implemented the dataset processing using **Pandas**, **scikit-learn** and **matplotlib**.

Student Researcher

The Henry Samueli School of Engineering

December - Now

- Implemented a **Distributed Computing** approach **Coded MapReduce**;
- Used Python **crawler** to collect links and **Coded Mapreduce** as framework to implement **Inverted Index**;
- Used **Docker** to simulate distributed system and Dispy library to implement communications among nodes.

Side Projects

Blockchain Development: Decentralized Photograph Auction Platform

October 2018

- Built up a **decentralized photograph auction** website with **Blockchain** technologies;
- Stored and managed distributed media files using **InterPlanetary File System**;
- Made **Smart Contracts** with **Solidity**, deployed them with **Truffle** and used **Ganache** to test contracts;
- Developed **frontend** using **React framework**, used **Web3** for interaction between frontend and **blockchain**;
- Successfully deployed and tested the website on the **Rinkeby Network** of **Ethereum**.

Full-Stack Development: Note-Trading Platform[MVC, Django, MySQL, AWS]

March - August 2016

- Used **MySQL** as the database for long-term data storage and **Redis** for data caching.
- Developed backend using **Django**, deployed the webserver using **uWSGI** and **Nginx** on **AWS EC2**;
- Developed the **Android** mobile app and **website frontend** using **jQuery** and **Bootstrap**.

Distributed Computing: Product Analysis[Python, Hadoop, EMR, Docker]

May - June 2018

- Implemented analysis of one million ratings of groceries from Amazon dataset using **MapReduce**;
- Used **Docker** to simulate local **Hadoop Cluster** and used **MRJob** to run python **Mapreduce** program;
- Used **AWS EMR** to run the whole dataset across 16 virtual machines.

Mobile Game Development[UE4, Blueprint]

June - October 2016

- Implemented a 3D mobile game using **Unreal Engine 4** in a team of three;
- Developed AI enemy character that could navigate to the player's location using **A* search**;
- Deployed the game on **IOS** and **Android**.

Honors

- UCI Blockathon (Blockchain Hackathon) - The First Place
- SD Hacks 2018 - Best Neural Gaming Prize

October 2018

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