

Josh (Yunzhe) Liu

1342 West 37th St. Los Angeles, CA, 90007
(254) 339-2845 · liuyunzhe.com · YunzheLiu1998@gmail.com · https://github.com/Haizhepi

EDUCATION

University of Southern California **Master of Science in Computer Science** **Los Angeles, California**
CSCI 570 Analysis of Algorithms CSCI 571 Web Technologies Expected Graduation: **May 2022**

Baylor University **Bachelor of Science in Computer Science** **Waco, Texas**
Major GPA: 3.8 Overall GPA: 3.5 **August 2016 - May 2020**
Data structures and Algorithms, Operating Systems, Computer Networking, Software Engineering, Data Mining

EXPERIENCE

USC Computational Social Science Lab - Los Angeles, CA **September 2020 - Present**
Developer

- Developed backend using **Node.js**, **MongoDB** on **AWS** Services (EC2, S3, SES, Route53)
- Migrate old databases from MySQL to MongoDB
- Develop a **NLP** python library package called the Neural Text Analysis Pipeline (NTAP) using **Tensorflow** and **Pytorch**

VIPShop – Guangzhou, CHINA **May 2018 – August 2018**

Software Developer Internship in Infrastructure Department

- Optimized the Warning expression evaluation algorithm of cloud server with **Java** by 50%
- Developed a Monitor in **Python** to monitor the logging system
- Researched on the JIT implementation of Java String.indexOf() function and benchmark on current string matching algorithms using jmh

Parallel Agile - Los Angeles, CA **August 2020 - December 2020**
Developer

- Research on location based advertising functionality and competitive products of CodeBot

ICPC North American Qualifier – Waco, Texas **October 2019**

SKILLS

Programming Languages: Java, JavaScript(ES6), Python, Dart, C/C++ Tools: AWS, Firebase, Linux, Docker
Frameworks: React.js, React-Native, Flutter, TensorFlow, Django, Vue.js, Node.js Databases: MySQL, MongoDB

PROJECTS

Archway Capstone Management System **January 2020 - May 2020**

- Built a content management system that users can view, upload and modify a capstone showcase
- Utilized Docker and Docker compose to manage **React.js** frontend, **Strapi.io** and **MongoDB** as backend
- Implement highly configurable component such as themes, information pages and role based access control

Natural Language to SQL Query Conversion (Research) **March 2019 - May 2020**

- Conducted research on current studies about converting natural language statement to SQL queries
- Improved performance of existing algorithms with a two-layered structure with an intermediate language
- Utilized NLP tools such as **Google Colab**, **TensorFlow** and **Spacy**

Shiip Network Protocol. **August 2019 - December 2019**

- Designed and implemented a **TCP** based data transfer protocol and a **UDP** based domain name protocol, along with a set of scalable and secure clients and servers using **Java Asynchronous I/O** with **SSL**, used Test Driven Development with **JUnit 5**

mHealth Hypertension Mobile App **August 2019 - January 2020**

- Created an educational mobile app using **React-Native** and **AWS services** backend, deployed on Android and iOS, to teach poor people in India about the danger of high blood pressure and ways to avoid it
- Coordinated with Baylor Nursing School about the requirements of the mobile app

PetFinder Site **January 2019 - May 2019**

- Developed a web app with **React.js**, **Spring boot**, **ElasticSearch** and deployed on **Heroku** using **CI/CD** with **GitLab**, allow users to register, sign in and match of sitters to take care of user's pets or find an offer

University for Young People **September 2018 - December 2019**

- Built a web application using **Django** and **MySQL**, allow users to register as teacher and student to view and apply for classes and an admin system to manage classes and applications