

JIAYU(JAMES) WU

College Station, TX

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Education

Texas A&M University

Aug 2019 – May 2023

B.S. Computer Science, Minor in Statistics

GPA: 3.92/4.0

- Relevant Courses: Distributed Systems, Parallel Computing, Computer Systems, Database Systems, Programming Studio, Computer Organization, Programming Languages, Data Structure & Algorithms

Experience

EOG Resources

May 2022 – Aug 2022

Software Engineering Intern

Houston, TX

- Spearheaded the development of Full Stack drilling data dashboard in **React.js** and **Express.js**, maximizing return on company's **multi-million-dollar** investment in drilling
- Integrated **Real-Time** drilling data visualization using React-uplot, maximizing user experience for **200+** petroleum engineers from the drilling team
- Configured **Nginx** a reverse proxy and load balancer to manage incoming traffic and distribute it to slower legacy database servers
- Reduced the drilling data configuration time by **67%** by migrating command line interface to **Material UI** components interfacing with a **REST API**
- Containerized project using Docker Image and built **CI/CD pipeline** with Github Actions, reducing **100%** manual workload

TAMU Rural and Community Health Institute

May 2021 – Aug 2021

Full Stack Web Developer

College Station, TX

- Migrated a data-intensive healthcare website from static pages to **Single Page Application** in React.js
- Automated PDF generations using React-pdf, which increased **100+** medical staffs' productivity
- Optimized UI rendering speed by **35%** using debouncing in React to limit excessive API requests from Textfield
- Implemented a Trie(prefix tree) based Autocomplete search bar, accelerating user search speed by **5 seconds**

TAMU Computer Science Department

Jan 2021 – May 2021

Computer Science Peer Teacher

College Station, TX

- Lectured over **150** students with fundamental C++ and Data Structure & Algorithms concepts during office hours and received positive feedbacks
- Troubleshooted bugs in students' programs and offered students best debugging practices (**GDB/Unit Testing**)

Projects

Social King | C++, gRPC, Protocol Buffer, Threads, Manager-Worker, Amazon EC2

Mar 2022 – Apr 2022

- Built a highly scalable and available social network service in C++ that leverages **gRPC** as the RPC mechanics and **protocol buffers** as IDL
- Implemented **multithreading** on the server to synchronize user information across clusters, improving server throughput by **50%**
- Achieved **fault tolerance** and **load balancing** with Manager-Worker database architecture in multiple clusters

Travel Expert | MongoDB, JavaScript, Node.js, Python, Bootstrap, Heroku

Jun 2021 – Jul 2021

- Developed a Full Stack JavaScript web app deployed on Heroku that performs **DFS algorithm** to reconstruct the flight history of the user who had a list of tickets
- Scrapped **100** flights tickets information using Python and implemented flight history visualization using **mapbox API**
- Built a NoSQL cloud database with **MongoDB Atlas** to manage user and flight information
- Integrated user authentication using **Passport.js** and improved client-side input validation with Bootstrap Alert feature

Hiphop Flea Market | ReactJS, Redux, Material UI, PostgreSQL, Django, JWT

Apr 2021 – Jul 2021

- Created a Full Stack eCommerce web app with **Django** framework, which provides product listing, product transaction, and product shipment tracking services
- Utilized **React and Redux** for client-side rendering of data fetched from API using asynchronous **AJAX** Request
- Employed **Django ORM(Object Relational Mapper)** to manipulate app data from PostgreSQL relational database
- Enhanced authentication and authorization security with **JSON Web Token (JWT)**

Technical Skills

Languages: JavaScript(TypeScript), Python, C/C++, Java, Bash/Shell, PHP, HTML, CSS(SASS)

Framework/Library: ReactJS, Redux, Bootstrap, ExpressJS, Django, Flask, gRPC, Hadoop

Database: MongoDB, MySQL, PostgreSQL, Mongoose, Sequelize

Tools: Git, AWS, Heroku, Docker, Jenkins, Chrome Dev Tool, Figma