

Jiayu Pu

Los Angeles, CA

☎ 614-620-3839 ✉ jiayupu@usc.edu 🌐 <https://github.com/Guinguin0416> 🔗 <https://www.linkedin.com/in/jiayupu>

EDUCATION

University of Southern California

Jan 2022 - May 2024

Master of Science in Computer Science

Los Angeles, CA

Relevant Courses: Data Structure, Algorithm, Object-oriented Design, Database System, Web/Mobile Development, Machine Learning, Game Design, Computer Network

The Ohio State University

Aug 2017 – May 2021

Bachelor of Science in Electrical and Computer Engineering, GPA: 3.6 / 4.0

Columbus, OH

TECHNICAL SKILLS

Programming Languages: Java, Python, C/C++, JavaScript, MATLAB, SQL, C#, Go, R

Web/Mobile Development: Java Servlet, Spring, Hibernate, Ant Design, ES6, LESS/SASS, Elasticsearch, ReactJS, Retrofit, Fresco

Tools: Git, Linux, AWS, GCP, MySQL, PostgreSQL, Docker, Maven, Tomcat, Postman, Android Studio, Unity

WORK EXPERIENCE

PLANET CENTS, INC.

Sep 2021 – Dec 2021

Tech Team Lead

Clearlake, CA

- Led a team of 5 to develop and maintain the e-commerce website using Shopify, set and tracked agendas of all activities
- Created a functional product search page for the website by using Vue.js with Shopify's predictive search APIs, improving users' search experience and increasing target audience engagement by 13%
- Built a language switcher on the homepage, allowing the user to switch store language among English, French and Japanese
- Translated 10+ UI/UX designs to Shopify theme implementations, resulting in customized elements layout of the website

Cardiovascular Magnetic Resonance Imaging Lab

Jan. 2020 – May 2021

Undergraduate Researcher

Columbus, OH

- Designed a ML-based classifier to assess CMR and ECG parameters for predicting how patients with frequent premature ventricular contractions would respond to catheter ablation
- Contributed to a 30% accuracy improvement via adjusting datasets selection and NN model parameters based on confusion matrix
- Analyzed the predictive results with digital signal processing and medical imaging knowledge to assist domain experts with risk stratification in assessing diagnoses
- **PUBLICATION:** Bhatti, S.; Pu, J.; Azfal, M.; Mann, J.; Gil, K.; Sheets, E.; Hopper, J.; Tong, M.; Ahmad, R. Predicting Success of Catheter Ablation for Patients with Premature Ventricular Contractions from CMR and ECG Parameters. SCMR's Virtual Scientific Sessions 2021

PROJECTS

Guinguin News - Tinder-like News App | Android

Jul 2022 – Sep 2022

- Designed the Tinder Flavor News app based on Google Component Architectural MVVM pattern, realizing the decoupling of the code
- Implemented the bottom bar & page navigation using Jetpack's Navigation component, enabling and handling deep linking
- Utilized the 3rd party CardStackView (RecyclerView) to support swipe gestures for liking/disliking the news, integrating animations for adding, updating and removing items, increasing the performance when loading list items
- Built the ROOM Database with LiveData & ViewModel to support local cache and offline mode, minimizing repetitive and error-prone boilerplate code, streamlining database migration paths

Guinguin Food Online Ordering System | Spring, Hibernate

May 2022 – Aug 2022

- Built RESTful APIs via Spring MVC, including registration, menu searching and ordering, checkout etc., which increased the modularity of the web application, and promoted the separation of concerns
- Utilized Hibernate to access and operate the data storage (menu, restaurants etc.), solving the data mismatch found between the object oriented classes of an application and relational database
- Implemented both authentication and authorization via Spring security, protecting the application from malicious attacks
- Built the client side with ReactJS and Ant Design, allowing users to add items to the shopping cart and place orders

Aroundagram Social Networking | Cloud, React

Apr 2022 – Jun 2022

- Designed and implemented a social network web application with ReactJS, boosting the speed and flexibility of development
- Implemented the authentication using token-based registration/login/logout flow with React Router v4 and server-side user authentication with JWT, increasing the scalability and efficiency
- Launched a scalable web service in Go to handle posts and deployed to Google Cloud (Google App Engine)
- Increased the performance and the scalability by using Elasticsearch (deployed to GCE) to provide search functions such that users can search recent posts and list personal posts

Twinkle Star - Trajectory Visualization | ReactJS, D3

Mar 2022 – Apr 2022

- Designed and developed a visualization dashboard using ReactJS and D3 to track satellites in real-time based on geo-locations
- Built location, altitude, and duration based selectors to refine satellite search using Ant Design component library, improving users' search experience
- Animated selected satellite paths on a world map using D3 to improve visual experience
- Achieved the core tracking functionality by fetching nearby satellites' info and position prediction data through the N2YO APIs and React-Simple-Map to animate selected satellite paths on a map