Luer Lyu

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EDUCATION

University of Southern California   August 2021-May 2023
Master of Computer Science (3.85/4.0)
- Awards and Honors: Honors Program

University of Nottingham   September 2017-June 2021
Bachelor of Computer Science with AI (3.95/4.0)
- Awards and Honors: High Achiever Award (top 10) (2020), President Scholarship (top 2.5% of grade) (2018)

WORK EXPERIENCE

University of Southern California   August 2022-December 2022
Teaching Assistant   Los Angeles, United States
- Assisted the preparation of course Analysis of Algorithms, designed exam contents and held office hours

Factory 42   July 2021-September 2021
Software Developer   London, United Kingdom
- Developed a 3D video conferencing app in Unity using C# with WebRTC and Render Streaming packages
- Deployed depth camera to catch image information and rendering the 3D image on Looking glass
- Implemented an assisting UI for the Augmented Reality project with Magic Leap One headset

Nottingham City Council   January 2020-February 2020
Front-end Programmer   Nottingham, United Kingdom
- Built a responsive website by using HTML, JavaScript, and CSS with Bootstrap framework, coordinated with the team using Trello to follow the Agile development method
- Developed the prototypes and increased accessibility and flexibility of the website

IDT SINYUAN Sealing Technology   July 2019-August 2019
Machine learning Research Member   Ningbo, China
- Created a website using Vue.js to automatize the process of transferring information from paper to excel and classifying data using a natural language processing model
- Utilized OCR to read scanned documents and experimented with RNN, LSTM algorithm and Bert to separate words in sentences and categorize the words
- Optimized the pipeline by developing a word segregation model, integrated the model as a pre-processing step and improved the accuracy by 6%

PROJECTS

E-commerce website (MERN stack)
- Implemented an online shopping website using React, Redux, React Hooks, React Suspense, React Router, GraphQL, Context API, Redux-Saga, Stripe
- Deployed Firebase NoSQL database to store user data and website information

Bitcoin Price Prediction Using Spark
- Implemented the ETL process using Spark with Python and deployed it onto Azure Data Factory
- Responsible for building the pipeline to create model using Spark and predict new results

Hanabi Card Game on Mobile Phone
- Steered a team of 4 to build a multi-player interactive card game for both iOS and Android system
- Conducted data analytics using REST API to send JSON data to cloud database and used Git to integrate works
- Produced the code for the main game logic, accomplished synchronizing players' data through internet with Socket Weaver API and exported the game with Unity and XCode

C++ 2D Roguelike Game Development
- Designed the game on OpenGL using C++
- Developed pseudo intelligent enemy characters, multiple levels, character selection and a score leaderboard

Java Frogger Game Development
- Implemented the frogger game with JavaFX/Java utilizing MVC, Factory design patterns and wrote JUnit tests

SKILLS

Technical skills: Java, C/C++, C#, Haskell, HTML/CSS, JavaScript, PHP, SQL, MATLAB, Python, R, Apache Spark, Unity, Git, REST, React, Linux