Ruijia Hua

EDUCATION

University of California, Los Angeles Sep 2023 - Dec 2024
- M.Eng. in Data Science | GPA: 3.8

University of California, Irvine Sep 2019 - Jun 2023
- B.S. in Software Engineering | GPA: 3.7

EXPERIENCES

UniUni | *Operations Data Analyst* | *Fontana* Current
- Engineered a proprietary fuzzy matching algorithm that transformed data lookup from hours to milliseconds across 10,000+ partner locations, eliminating dependency on manual navigation
- Built scalable automation system that intelligently deduplicates, matches, and maintains tens of thousands of partner's addresses records, providing instant access to transaction and transportation history

Johnson & Johnson | *Capstone/Contract* | *Remote* June 2024 - Aug 2024
- Implemented an AI chatbot for J&J using LLaMA 3.1 with LangChain to track data from J&J's production line, allowing J&J employees to access database insights without engineering support.
- Integrated system with the company's AWS relational database using PYMSSQL, generating SQL queries through LLMs for real-time data retrieval, and cutting data retrieval time by 85%.
- Participated in iterative development and continuous delivery by following Agile Methodologies and SCRUM.

UCI Sue and Bill Gross Stem Cell Research Center | *Web Developer* | *Irvine* Jul 2022 - Nov 2022
- Developed and maintained its website using HTML, CSS, and JavaScript to enhance usability and accessibility.
- Installed Request Tracker system to efficiently manage departmental requests with regex for word extraction.
- Implemented security features to the website, distinguishing humans from robots to prevent DDoS attacks

Bosch | *Backend Developer* | *China* Jul 2021 - Sep 2021
- Automated inconsistency detection and resolution for Bosch's department database containing records for 5,000 employees using Python and SQL, improving data accuracy and reducing processing time by 30%

SKILLS

Languages: Python, MySQL, Java, JavaScript, TypeScript, HTML, CSS, R
Technical Skills: Data Analytics, Performance Optimization, Git, LLM, Angular, Scikit-Learn

PROJECTS

Volunteering Platform Sept 2022 - Mar 2023
- Contributed to the development of a volunteer management app "CHODI" for iOS and Android that connects volunteers with local organizations using Flutter framework

E-commerce Website Feb 2023
- Created a dynamic E-commerce platform using Java Servlet, JavaScript, and GlassFish

Gesture Controlled YouTube Video Player Nov 2022
- Implemented TensorFlow's handtracking algorithm to recognize hand gestures
- Utilized YouTube API and Angular to create a webpage for users to control videos using hand gestures

Gesture Controlled Curtain Apr 2022 - Jun 2022
- Developed a gesture control algorithm on a Raspberry Pi to recognize hand gestures using the machine-learning framework Mediapipe
- Created a webpage for the product to allow users to control the curtain on their phones
- Designed an API using Flask and Python to allow communication from the webpage

PUBLICATION

- X. Dong, **R. Hua**, "GAN Based Image Inpainting Methods: A Taxonomy," 2022 3rd International Conference on Electronic Communication and Artificial Intelligence (IWECAI), 2022, pp. 145-150, DOI: 10.1109/IWECAI55315.2022.00037.

RESEARCH EXPERIENCES

Mutation Testing Research | *Research Assistant* | *Irvine* Apr 2022 - Nov 2022
- Visualized the tree structure of XML files generated by the mutation testing algorithm using Networkx
- Designed a similarity algorithm using Networkx and the GED similarity measure
- Identified the difference between the structure of the original code effectively and the structure of mutated code

Machine Learning Research | *Research Assistant* | *Remote* Oct 2021 - Jan 2022
- Developed an AI program that generates an image of a person's face when given an image of that person wearing a facial mask, achieving 70% accuracy using Generative Adversarial Networks (GAN)
- Researched the advantages of different image inpainting models such as Pix2Pix GAN and CycleGAN