

Ruijia Hua

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EDUCATION

University of California, Los Angeles.

Sep 2023 - Dec 2024

- M.Eng. in Data Science | Cum GPA: 3.8/4.0

University of California, Irvine

Sep 2019 - Jun 2023

- B.S. in Software Engineering
- **Awards:** Deans Honor List (Winter 2023, Fall 2022, Winter 2022, Spring 2021, Winter 2021)

SKILLS

Languages: Python, Java, MySQL, JavaScript, TypeScript, HTML, CSS

Tools/Skills: AWS, RESTful API, Performance Optimization, Git, Angular, Scikit-Learn

EXPERIENCES

Johnson & Johnson | Capstone | 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, and used regex for word extraction.
- Implemented security features to the website, distinguishing humans from robots to prevent DDoS attacks

Bosch | Voluntary Assistant | 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%

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 framework 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 (IWEC AI), 2022, pp. 145-150, DOI: 10.1109/IWEC AI55315.2022.00037.

RESEARCH EXPERIENCES

Mutation Testing Research Program | 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, generating a similarity percentage

Machine Learning Research Program | 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