Ruijia Hua

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EDUCATION

University of California, Los Angeles. Sep 2023 - Dec 2024
- M.Eng. in Data Science | Cum GPA: 3.84/4.0

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)

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.

WORK EXPERIENCES

UCI Sue and Bill Gross Stem Cell Research Center | *Web Developer* | Irvine Jul 2022 - Nov 2022
- Developed and maintained the website for UCI Sue and Bill Gross Stem Cell Research Center using HTML, CSS, and JavaScript
- Installed the Request Tracker, a ticket system to manage requests among users in the entire department
- Created a word extraction algorithm for the request tracker using Regex
- Implemented security features to the website, distinguishing humans from robots to prevent DDoS attacks

PROJECTS

Johnson & Johnson Data Tracking AI Chatbot June 2024 - Aug 2024
- Developed a chatbot for J&J using LLaMA 3.1 with LangChain to track data from J&J's production line, allowing employees to ask previously inaccessible customized questions, dramatically improving efficiency
- Integrated the system with the company's AWS database using PYMSSQL, generating SQL queries through LLMs for real-time data retrieval

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

Bosch database automation system Jul 2021 - Sep 2021
- Automated Bosch's department database restructuring process for 5,000 employees using SQL and Python, improving data accuracy and reducing processing time by 30%

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

TECHNICAL SKILLS

Python, Java, JavaScript, TypeScript, HTML, CSS, Angular, C++, C, SQL, Scikit-Learn, Prolog, Assembly, Figma