

# Ruijia Hua

+1 (510) 674-7800 | [ruijiah@uci.edu](mailto:ruijiah@uci.edu) | [linkedin.com/in/ruijiahua](https://www.linkedin.com/in/ruijiahua) | [ruijiahua.com](http://ruijiahua.com)

## EDUCATION

### The University of California, Irvine

Sep 2019 - Jun 2023

- B.S. in Software Engineering
- Cum. GPA: 3.68/4.0
- Awards: Deans Honor List (Winter Quarter 2022, Spring Quarter 2021, Winter Quarter 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 Dev Intern | 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

### Bosch | IT Intern | Wuxi

Jul 2021 - Sep 2021

- Used multiple SQL queries and Python to match and rearrange 5000 employees' departments, status, and other information

## 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
- Published an academic journal about image inpainting using GAN
- Utilized the machine learning libraries: Scikit-Learn, Pytorch, and TensorFlow

## ENGINEERING PROJECTS

### 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 YouTube videos using hand gestures

### Sleep Tracker App

Nov 2022

- Developed a mobile app using Ionic Lab and Angular to track a user's sleep data
- Used local storage to persist the data so that even after reopening the app the data is still there

### 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

### Product UI Design

Jan 2022 - Mar 2022

- Created a UI mockup in Figma for a decision-making app called DELFI ([Link to the prototype](#))
- Designed a website for DELFI using Wix ([Link to the website](#))

## TECHNICAL SKILLS

Python, Java, C++, JavaScript, TypeScript, HTML, CSS, Angular, SQL, Figma