# RUITAO WU

# Software Engineer



Personal Page



RuitaoWu



ruitao-wu



ruitaowu0@gmail.com



626-267-3098

#### **OBJECTIVE**

I AM LOOKING FOR AN ENTRY LEVEL SOFTWARE/FRONT-END/BACK-END ENGINEER TO START MY CAREER JOURNEY WITH MY PASSIONATE AND AMBITIOUS IN PROGRAM AND COMPUTER SCIENCE.

THE SYSTEMS AND INTELLIGENCE LABORATORY | Research Assistant | Present | San Diego, United States

→ Demonstrated expertise in actively contributing to an NSF-funded project centered on air traffic flow management and robotic systems.

#### THE AUTONOMY RESEARCH CENTER | RESEARCH ASSISTANT

June 2021 - May 2022 | Northridge, United States

→ The individual demonstrated a proactive involvement in multiple Computer Science and Engineering projects, exhibiting adaptability, collaborative teamwork, and practical application of technical expertise.

#### **PROJECTS**

## SENIOR DESIGN CALTRANS PROJECT | PYTHON, MACHINE LEARNING

2021 - 2022

- → Proficient in accurately labeling vehicles in LiDAR point clouds and efficiently converting the results into a machine-readable TXT format for training machine learning models.
- → Implement OpenCV and YOLO create prototype that can access webcam and detect object
- → Effectively collaborate with stakeholders and team members, adeptly translating user requirements to optimize project execution, and deliver meticulous weekly progress reports highlighting encountered challenges to supervisors.

## DBMS WEB-BASED PROJECT | JAVASCRIPT, EXPRESS.JS, HTML, MYSQL

2021/7 - 2021/08

- → Design ERD(Entity Relational Diagram) for Blog website and guery scripts that enable user insert, delete, and search data from database
- → Build a web page for users and enabled registration new account, post comment, and search features.

## VIDEO WEBPAGE | REACTJS, MATERIAL UI, NODE.JS, RAPID API

2021/06 - 2021/07

→ Implement ReactJS to develop dynamic and visually appealing video webpages, integrated Material UI, as well as RESTful API to retrieve and handle backend data.

#### SMART CONNECTED WORKER | JAVASCRIPT, FLASK, HTML

2021/06 - 2021/07

→ Design single page website to visualize real-time and historical accumulate energy consumption data

#### SKILLS

#### **PROGRAMMING**

JAVA • Python • C/C+ JavaScript • MySQL • Flask LATEX • ReactJS • Git

#### **EDUCATION**

## SAN DIEGO STATE UNIVERSITY

MASTER'S IN COMPUTER SCIENCE Present | San Diego, CA

### CSU, NORTHRIDGE

BACHELOR'S IN COMPUTER SCIENCE May 2022 | Northridge, CA College of Engineering and Computer Science

### COURSEWORK

- Machine Learning
- Database Theory and Implementation
- Web Engineering
- Software Engineering
- Algorithm Analysis and Design
- Wireless Networks
- Scientific Computing
- Advanced Distributed Systems
- Adv Multimedia Networks

#### LANGUAGE

- Chinese
- English

## **AWARD/HONORS**

**DEAN'S LIST** FALL 19 | FALL 20 | Spring 20

California State University, Northridge

## SENIOR DESIGN SHOWCASE FIRST PLACE IN COMPUTER SCIENCE

**DEPARTMENT** Spring 22

ORAL PRESENTATION: 3D OBJECT DETECTION AND VEHICLE CLASSIFICATION BASED ON LIDAR POINT

CLOUDS TO MONITOR REAL-TIME TRAFFIC FLOW

California State University, Northridge

## **CONFERENCE**

IEEE GREEN ENERGY AND SMART SYSTEMS CONFERENCE (IGESSC 2022) Date:

November 7-8, 2022 Location: Virtual

#### **PUBLICATION**

R. WU,ET AL "REAL-TIME VEHICLE DETECTION SYSTEM FOR INTELLIGENT TRANSPORTATION USING MACHINE LEARNING," 2022 IEEE GREEN ENERGY AND SMART SYSTEM SYSTEMS (IGESSC), LONG BEACH, CA, USA, 2022, PP. 1-6, DOI: 10.1109/IGESSC55810.2022.9955329.

#### **MEMBERSHIP**

THE SYSTEMS AND INTELLIGENCE (SMILE) LABORATORY, STUDENT MEMBER Present

NASA -- THE AUTONOMY RESEARCH CENTER FOR STEAHM, STUDENT FELLOW  $_{\rm 2021}$ 

ASSOCIATION FOR COMPUTING MACHINERY, STUDENT MEMBER 2021

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, STUDENT MEMBER  $\ _{2021}$