Jiu Chen

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Education

Oregon State University , Oregon, US 2021 – 2024

Undergraduate student in Electronic and Computer Engineering (ECE) and Computer Science(CS)
GPA:3.49

Northwest Minzu University, Gansu, China 2018 – 2022

Bachelor of Engineering in Electronics Engineering (EE)
GPA:3.23

Research

Short/Long-term Causal Effect Estimation with Double-head Transformer Oregon, US 2023

Co-Author of paper Department: Electrical Engineering and Computer Science of Oregon State University

Brief introduction: Developed an innovative double-head Transformer model, enhancing accuracy and interpretability in causal effect estimation. The following key points were explored and achieved:

- Implemented a sophisticated machine learning architecture capable of capturing complex relationships in large, multidimensional datasets for nuanced causal effect estimations.
- Innovatively integrated multiple attention mechanisms and deeply stacked layers in the Transformer model, enhancing its predictive accuracy and interpretability for both short-term and long-term effects.

Machine Learning and Innovative Causal Analysis Research Pennsylvania, US 2023

Project Department: Computer Science of Carnegie Mellon University

Brief introduction: Mastered machine learning techniques and led a transformative research project in causal treatment analysis.

- Gained expertise in machine learning and data analysis, mastering techniques in exploratory data analysis, clustering, and predictive modeling using decision trees and ensemble methods.
- Led a pioneering research project to enhance long-term causal treatment effect estimation using transformer models, demonstrating innovation and advanced programming abilities.

Video Summarization Algorithm Gansu, China 2021

Research Assistant Department: Graduate School of Lanzhou University

Brief introduction: Supported key research in video summarization by extracting and analyzing informative content.

- Assisted in tagging and categorizing video content for the graduate research team, enhancing the accuracy of video data analysis.
- Studied advanced video summarization algorithms, focusing on the extraction of meaningful clips and structural redundancy analysis.

Speech Recognition Project Zhejiang, China 2021

Research Assistant Department: Graduate School of Zhejiang University

Brief introduction: Collaborated in developing a TensorFlow-based speech recognition model for local dialects.

- Co-developed a model capable of accurately converting local dialect speech into text.
- Achieved an impressive model accuracy rate of 97% in dialect recognition and transcription.

Professional Experiences

Garmin Ltd. Oregon, US 2023

Machine Recognition Developer Department: Electrical Engineering and Computer Science, Oregon State University

Brief introduction: Engaged as a Machine Recognition Developer in the undergraduate capstone project focusing on the RoboRacer autonomous robot designed to aid athletic training.

- Designed and implemented an Autonomous Navigation System for RoboRacer, incorporating advanced programming techniques and sensor integration for precise track line-following and lane adherence.
- Developed a sophisticated obstacle detection and avoidance system, combining various sensors and algorithms to ensure safety and adaptability in dynamic training scenarios.
- Worked collaboratively in a cross-functional team, contributing significantly to the integration and testing phases, thereby ensuring seamless operation and robust performance of the robotic system.

China Unicom., Ltd. Gansu, China 2021

Summer Internship Department: Information Security

Brief introduction: Engaged in data operation with a focus on big data model optimization and information security analysis.

- Conducted operational tuning of big data models including Tariff Sensitivity Model, User Rights Preference Model, and potential user modeling for 5G products and upgrade packages.
- Performed vulnerability analysis in information security, focusing on 5G terminal upgrade modeling and user data protection.

♡ Awards and Honors

Paper Acceptance, Paper on "Short/Long-term Causal Effect Estimation with Double-head Transformer" included in the INCC Conference, and will be submitted for review to Ei Compendex and Scopus Index. 2023

Scholarship, Andrew C. Lim, Lim Ho Puah & Lim Peng Mau Scholarship at Oregon State University College of Engineering. 2023

Scholarship, International Student Scholarship at Oregon State University. 2023
Scholarship, Third-Class Scholarship at Northwest Minzu University. 2021
Certificate Computer Software Copyright issued by the National Copyright Administration of China. 2021
Certificate, Third Prize in China Computer Design Competition. 2021
Scholarship, Third-Class Scholarship at Northwest Minzu University. 2019

Volunteer Activities

Volunteer at 2023 Oregon State University Engineering Expo Oregon, USA 2023

- Primarily responsible for managing the functional planning and information dissemination of the exhibition area during the expo.

United Nations Young Talent Program (UNYTP), 9th Edition Geneva, Switzerland 2023

- Participated in international diplomatic affairs and conferences and coordinated educational sharing sessions with multiple international organizations.

Charitable Donations Beijing, China 2021

- Continued donations to UNICEF over a period of three months.

Infrastructure Development Research Honiara, Solomon Islands 2018

- Promoted educational and cultural exchanges using internet technology and digital training, facilitating the transition from regional dialects to international languages, supporting the achievement of sustainable development goals.

Volunteer at the 26th Asia-Pacific Economic Cooperation (APEC) Port Moresby, Papua New Guinea 2018

- Responsible for setting up conference publicity and preliminary arrangements.

Volunteer Teaching Port Moresby, Papua New Guinea 2018

- Provided voluntary language training and computer application knowledge to students at Pacific Adventist University.

Community Development Assistance Selangor, Malaysia 2017

- Used internet technology to promote cultural exchanges among community residents and the internet applications in education, health, social protection, and employment opportunities, enhancing community development.

Internet Technology Exploration Yishun, Singapore 2016

- Explored how internet technology can be applied in climate disaster prevention and early warning systems to improve social management capabilities, achieving timely reception, interconnected sharing, and efficient equality.

Exploring Digital Technology in Promoting Cultural Exchange Siem Reap, Cambodia 2015

- Investigated the state of network infrastructure in underdeveloped areas, as well as the affordability, privacy security, and stability of internet access.

PERSONAL PROJECTS

Math Puzzle Game 2023

- Utilized skills in HTML5, CSS, and JavaScript to develop an interactive frontend application, including designing and implementing the user interface. Independently completed the development of a mathematical game, including game logic processing, user interaction, and dynamic DOM operations.

Music Database Application 2023

- A full-stack web application for performing basic CRUD (Create, Read, Update, and Delete) operations on a music database. The frontend of the application was developed using HTML, CSS, and JavaScript, with Node.js and Express.js for the backend, and MongoDB for the database.

Personal Portfolio Website 2023

- Built a personal portfolio website using frontend libraries and frameworks such as jQuery, gnMenu, and Bootstrap Carousel.

MISCELLANEOUS

- Club: Oregon State University Artificial Intelligence Club Member
- Proficiency in programming languages: C++ == Python > Java > C