LUOHAO XU

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EDUCATION

Imperial College London

MSc Environmental Data Science and Machine Learning   Oct 2022 - Oct 2023

Key Courses: Big Data Analytics, Advanced Programming, Deep Learning, Applied Data Science

University of Glasgow & University of Electronic Science and Technology of China

BEng Electronic and Electrical Engineering with Information Engineering   Sep 2018 - Jun 2022

GPA: 3.77 / 4.0 | Degree Class: with Honours of the First Class (1:1)

WORK EXPERIENCE

Shanghai Pudong Development Bank Co. Ltd London Branch   Dec 2023 - Jul 2024

Information Technology Graduate Trainee   London, United Kingdom

- In IT projects: participated in initial requirements gathering, conducted functionality analysis and design, collaboratively developed features, managed bidding processes, conducted output testing, and provided user training post-launch
- For internal management systems: designed and developed the policy and procedure management workflow, contributed to the development of the comprehensive procurement process, and enhanced the regulatory report reminder system
- Responsible for office helpdesk tasks: troubleshooting computer hardware, networks, account issues, office software and accessories
- Operation and maintenance IT device, system and server room: setup and recycling of devices for new and former employees, IT devices procurement, software application in current environment, VDI setup and configuration, Biz terminal modifications, firewall management, server room inspections, VMware server initialization and management, data backup
- Emergency handling: on-site troubleshooting, redistribution of issue data, replacement of faulty devices or components, summarizing the data supplement process, writing post-incident reports

Chengdu Dianzhen Technology Co. Ltd   Jul - Sep 2022

Software Developer Intern   Chengdu, China

- Trained a ResNet model using TensorFlow framework with sampled and generated datasets with different modulation modes and SNR levels, and further fine-tuned it with resampled, amplitude-stretched and preprocessed real waveforms using SciPy
- Achieved 85% accuracy on the simulated signals (SNR > 0dB), and 91% on real signals

RELEVANT PROJECTS

Spatio-Temporal Crime Hotspot Prediction and Simulation of New York City   Jul - Sep 2023

- Preprocessed NYC crime records using Pandas, and performed EDA and data visualization with Streamlit
- Trained ConvLSTM, Random Forest and SARIMA models using PyTorch and Python to predict the location and probabilities of different kinds of crime, achieving a Predictive Accuracy Index (PAI) of 7.2

Smart Obstacle-Avoiding Path-Following Rover   Mar - Jul 2021

- Collaboratively designed a route-tracking and automatic obstacle-avoidance rover using the i.MX RT1064 microcontroller for the embedded system, OpenMV for machine vision module and various sensors
- Led the team, managing feature analysis, task allocation, project timeline, core functionality development, and final presentation.

TECHNICAL SKILLS

- Experienced with Python, JavaScript, HTML, CSS, Java, Git, React, Vue, Node.js, MySQL, MATLAB
- Interests: Mountain biking, Video editing (200k+ YouTube views)