Zhu Yizhang

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EDUCATION

Chongqing University   **09/2019-06/2023**
B.Eng. in Computer Science and Technology / GPA: 3.6/4.0
The Hong Kong University of Science and Technology (Guangzhou)   **09/2023-**
Current M.Phil. Student

PROJECT EXPERIENCES

Predictive Maintenance System for Turbofan Engines Based on Deep Learning Methods   **10/2022-12/2022**
Co-developer
- Analysed multivariate time series data from 21 sensors used on 100 machines and built CNN and LSTM models to predict and classify turbofan engine failures;
- Built models to predict the remaining useful life to facilitate predictive and proactive maintenance interventions by engineers.

A Simple Five-stage Pipeline MIPS SOC   **12/2021-01/2022**
Co-developer
- Was responsible for the logic, shift, data movement instructions and HILO register; participated in the achievement of privileged instructions;
- Developed and implemented 57 instructions (including 52 normal instructions and 5 privileged instructions); completed the SRAM interface package and passed all independent tests and 64 functional tests.

Anomalies Detection and Prediction in Intelligent Operation and Maintenance of Base Stations   **11/2021**
Team Leader
- Analysed tens of thousands of data about 67 KPI performance indicators of operator base stations within 29 days, focusing on the application scenarios of intelligent operation and maintenance;
- Realised the early warning mechanism of abnormality and helped engineers to prevent problems in advance by conducting anomalies detection, abnormality prediction and trend prediction for three core indicators of different cells;
- Used multiple cloud server resources within the group to build a cluster, so as to realize the parallelization of computing.

COMPETITION EXPERIENCES

National College Students Mathematical Contest of Modelling
(Optimization of Reaction Conditions for the Preparation of C4 Olefins by Ethanol Coupling Bases on Regression Analysis)
Project Introduction: Figured out the effect of temperature and catalyst combination on ethanol conversion and C4 olefin selectivity and found the catalyst combination and temperature that maximise the C4 olefin yield through the data analysis of the reaction of ethanol coupling to prepare C4 olefins.

Mathematical Contest in Modelling (MCM/ICM)
(Trading Strategies: A Model Based on Optimised Bollinger Bands)
Project Introduction: Realised investment trade modelling for gold and BTC; alleviated the delay problem of investment decisions based on traditional Bollinger Bands by introducing KDJ and AMA; reduced losses caused by transaction costs and provided corresponding trading strategies for investors with different risk preferences based on the strategic optimisation of commissions.

LANGUAGE

IELTS: Overall 7.0 (Listening: 7.5; Reading: 8.5; Speaking: 6; Writing: 6.5)
2020 National English Competition for College Students (NECCS): National Third Prize

AWARDS AND CERTIFICATES

06/2023   Excellent Graduates of Chongqing University
05/2022   Honourable Mention of the Mathematical Contest in Modelling (MCM/ICM)
11/2021   The National Third Prize of National College Students Big Data Challenging Competition
10/2021   The Regional First Prize of the National College Students Mathematical Contest of Modelling (Chongqing Division)
08/2021   The Regional Second Prize of China Collegiate Computing Contest WeChat Mini-program Development Competition (Southwest Division)
08/2021   The Regional Silver Prize of the 7th "Internet+" Innovation and Entrepreneurship Competition for College Students (Chongqing Division)