LIN ZEYANG e190049@e.ntu.edu.sg

Education Background

Bachelor of Engineering 2015.9 – 2019.6 Master of Science 2019.7 – 2020.6

Southeast University (Nanjing, Jiangsu) Nanyang Technological University (Singapore)

School of Instrument science and engineering School of Electrical and Electronic Engineering

Measurement technology and Instrument Communications Engineering

Weighted average score: 86.39/100 GPA: 4.56/5.00

Projects

07/2022	Stranger social platform Metric Construction		
	Situation	In the fierce competition of stranger social, users may be active in many stranger	
		apps simultaneously, which causes great difficulties to user retention. Customer	
		churn results in bad revenue of the platform.	
	Task	This project aims to establish a miniature indicator system from scratch used for	
		quantifying business development.	
	Action	Broke the whole business into three sections: <u>user</u> , <u>business</u> and <u>platform</u> .	
		Sorted out business indicators for each part, shown in mind map.	
		Designed data embedding events for selected indicators and randomly generated	
		some user behaviour data using Python.	
		Based on the generated data, worked out the indicator values and customized metric boards.	
	Result	1 An indicator system provides us with a comprehensive perspective towards monitoring and understanding business development.	
		2 Based on historical data of indicators, reasonable fluctuation range of indicators can be set, which facilitate early warning mechanism.	
		3 Metrics boards bring many benefits: vivid and real-time data visualization, easily-discernible trend of the data.	
06/2022	User intention detection Based on pre-trained language model ERNIE		
	Background	At present, voice interaction is more in line with people's living habits. However, there is still a long way to go to meet the various types of complex needs of users. The origin can be found that the high complexity of natural language itself hinders the machine's understanding of the users' intentions. The natural language understanding (NLU) task, important to products with voice interaction ability, aims to enable the computer to understand the user's language, so as to	
		make the next decision or complete the interaction action.	
	Task	Build models to identify users' implicit/explicit intent and extract key slot	
	G 1 .:	information from text messages.	
	Solution	Improved the training data quality by corpus enhancement. Used divide and rule	
		strategy, with the help of pre-trained language model and Chinese word vector,	
		finally achieved the functional requirement with the metrics a little better than	
		that of a baseline model.	

11/2021 **AB test on two banner schemes**

<u>Situation & Task</u> Assumed an e-commerce scenario, there were two different ad banner adjustment solutions we wanted to know the user acceptance to. And plan to design an AB test on it.

<u>Action & Result</u> Prerequisites and relevant assumptions were considered. And then designed user events and grouping strategies. Executed some statistical operations based on sample data and drew a conclusion.

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2017-2018 Southeast University RoboCup team member (rescue simulation 2D)

<u>Situation</u> The team was built for the RoboCup competition and my sector focuses on resource scheduling simulation task.

In a simulated environment, we collaboratively implemented our algorithms to allocate several kinds of virtual resources in case of fire situations, which can minimize the loss of the fire damage and the teams get graded according to the controlling performance.

<u>Duty</u> primarily maintained and optimized our clustering function, for example, upgrading the Kmeans to Kmeans++ leading to a reduction of precomputation time and providing a good initial distribution setting. As a result, my teammates could run their functions based on the pre-clustered pattern in an efficient way.

01/2019-

Research on landing plane selection based on Lidar

[UG FYP]

<u>Situation</u> The main purpose of this FYP is to read out the data from offline Lidar data files and locate the desirable landing plane. I developed a custom program for user to select specific data files and visualizing the dynamic plane selection.

<u>Solution</u> I firstly tried to use PCL, a well-known library for point cloud processing, however got out of it later due to the heavy weight. According to the nature of the data structure dumped in files, I developed an ad-hoc decoding method to work out the locus of planes. It achieved the balance of accuracy and computation load and facilitated the dynamic playing smoothness.

<u>Optimization</u> After meeting the functional requirements, the corresponding optimization was explored from the aspects of code optimization, introduction of SIMD technique and CUDA programming, and the difference in effects was summarized and the reasons were analyzed.

Working experience

08/2020-

JAVA software engineer at a fintech company

to Linkedin profile

04/2022 <u>key responsibilities</u>

develop, maintain, bugfix and upgrade functional code for new and old systems. *something memorable*

- 1 Upgraded a dependency graph visualization which improves user experience.
- 2 Responsible for a lingering and complicated version transition task that required follow-up communication and tailored technical solutions, which allowed stakeholder business parties to enjoy comprehensive features of higher version.
- 3 Owned an searching cluster, from establishment, development to maintenance of applications running upon it. Solved the technical stagnation of the outsourcing team at that time and anything relevant got quickly responded.

Stack: Springboot/ Mysql / Mybatis /SpringCloud/ Elasticsearch / Gitlab / Linux

Scholarshin & Prize

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06/2018	Huawei Scholarship	University level		
04/2018	RoboCup 2018, China Open, Rescue Simulation 2D, First Place	Nation level		
07/2017	RoboCup 2017, Nagoya, Japan, Rescue Simulation 2D, Fourth Place	World level		

Skills

Perform data preprocessing and EDA using Python and relevant libraries (e.g., Pandas, Numpy). certificate
Develop basic DNN models with the help of Pytorch/PaddlePaddle.

Call scikit-learn API to build models for predictive data analysis.

Make visualizations by means of Echarts and also d3.js previously.

Application of some thinking frameworks (e.g., AARRR, SWOT, BCG matrix, 3C, PEST)

Other Experience: Tableau, SPSS, matlab, SQL, Linux

PREFERRED: DATA ANALYSIS/MINING BASE: ZHEJIANG/JIANGSU/SHANGHAI