Yufan Tang

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EDUCATION

Nanjing University of Aeronautics and Astronautics
Bachelor of Computer Science and Technology **Nanjing, China**
Sept 2018 – Present

- **Average Score:** 90/100
- **Related Coursework:** Embedded Systems Principle and Application Experiment, Database Principle Course Experiment, Operating Systems, Computer Architecture, Principles of Computer Organization, C++ language Programming, Experiments In Data Structure

University of Edinburgh **Edinburgh, UK**
International Student Exchange Program *Sept 2020 – Dec 2020*

- **Average Score:** 74.3/100
- **Related Coursework:** Introduction to Vision and Robotics, Introductory Applied Machine Learning, Introduction to Databases, Introduction to Practical Programming with Objects

PROFESSIONAL EXPERIENCE

Alibaba Cloud Computing Co. Ltd., **Hangzhou, China**
Java Intern Engineer *Jul 2021 – Sept 2021*

- Created and presented solution architecture designs to senior personnel.
- Participate in the company's related sales ecological management business, help develop incentive mobile app for the sales team, increase the sense of policy participation of sales staff, and ensure the implementation of policies to ensure stable sales growth of the company.
- Developed the back-end part of the monitoring and alarm platform for the company, and completed the first phase of the project jointly debugging with the front-end developers.

EWELL Technology Co., Ltd., **Hangzhou, China**
Java Intern Engineer *Jan 2021 – Feb 2021*

- Used the producer-consumer model and asynchronous non-blocking queues in solving log storage performance issues.
- Modified the company's original full-character route matching algorithm, adopting the dictionary tree data structure to store all links to meet the requirements of fast matching query, fuzzy matching, and another standard matching.

IN-SCHOOL PROJECTS

International Student Exchange Program(University of Edinburgh) **Edinburgh, UK**
Sept 2020 – Dec 2020

Project 1. Introduction to Practical Programming with Objects (Mobile Guide Display Application)
- A map navigation application was developed in Java, using Javafx as a layout component, allowing users to move in all directions.

Project 2. Introductory Applied Machine Learning (Machine Learning & Python Practice)
- Naive Bayes, Decision Tree, SVM, PCA and other machine learning models were called to deal with image and text classification using the function libraries such as Numpy, Sklearn, and Pandas in Python.
- ROC Curve and other analysis methods were used to evaluate the fitting status of the model.

Project 3. Introduction to Vision and Robotics (ROS Robotic Arm Vision Target Detection)
- To keep the accuracy of the robot arm, the CV image detection algorithm was implemented in the Linux system using Python and ROS programming.
- Forward Kinematics algorithm and closed-loop Control method were applied to deal with the unexpected situation when the object cannot be detected in the camera or multiple moving objects cannot be distinguished by color.

Design of a pipelined MIPS CPU with single cycle **Nanjing, China**
Apr 2020 – Jun 2020

- Designed the 5 stage pipeline processor with single cycle which started with an ALU, register file and SRAM driver.
- Developed the pipelined datapath by separating the modules and control logic into the 5 MIPS pipeline phases: fetch, decode, execute, memory access, write back.

- To allow for the five stages (fetch, decode, execute, memory access, write back), several control blocks were implemented to enable data flow among the ALU, register file and SRAM driver.

RESEARCH EXPERIENCE

Bert text classification Model based on Generative Adversarial Network (GAN)   **Nanjing, China**
Sept 2021 – Present

- Wrote automated test scripts to test the performance of multiple Bert models on a news text data set, and adopt various evaluation indicators, including recall rate, accuracy rate, EER and so on.
- Since the test found that the generalization ability of the basic Bert model was insufficient, it was considered to use generative adversarial network to expand the data of the original data set samples in an attempt to improve the generalization ability of the model.
- After studying the simple GAN generation model, conditional GAN and semi-supervised GAN are considered to be adopted to expand the classified data of the labeled data set

Quantitative analysis of bank credit risk(Contest paper)   **Nanjing, China**
Sept 2020 – Sept 2020

- Based on the quantitative risk analysis and customer churn rate, a profit expectation maximization model and a closed-loop credit scheme for customer churn rate are established. The nonlinear model is solved by LINGO, and the strategy for maximizing expected returns is given.
- The economic change charts of various industries during the SARS period in 2003 were collected, and the GBDT machine learning model was used to quantitatively analyze the profit and loss of each industry in the event of emergencies, so as to establish an enterprise default risk assessment model to deal with emergencies.
- Based on the established model, the paper analyzes the bank's credit adjustment strategy under the total annual credit of 100 million dollars.

Design and Development of e-Parking App   **Nanjing, China**
Team Leader   *Nov 2019 – Dec 2020*

- Responsible for the JAVA programming of the back-end connection part of the database, where the database was designed to store the parameter data of the underground garage and finished by mysql, while the front-end part was mainly used XML to complete the programming task of the mobile interface.
- Considering the large number of potential user groups, access request limiting and fusing mechanisms were applied while programming.
- Responsible for the transplantation and embedding of Dijkstra shortest path algorithm by the cooperation team members, and used jmeter to conduct a pressure test on the test level to ensure the service's accuracy.

HONORS & AWARDS

2020-2021 Academic Scholarship of NUAA (top20%)	First Prize
2020-2021 Excellent Student Scholarship of NUAA (top15%)	Second Prize
2020-2021 Merit Student Scholarship of NUAA (top15%)	
2021 The Mathematical Contest In Modeling (USA)	S Prize
2020 Contemporary Undergraduate Mathematical Contest in Modeling(Jiangsu Region)	Second Prize
2019-2020 Academic Scholarship of NUAA	First Prize
2019-2020 Excellent Student Scholarship of NUAA	Third Prize
2019-2020 Merit Student Scholarship of NUAA	
2018-2019 Academic Scholarship of NUAA	First Prize
2018-2019 Excellent Student Scholarship of NUAA	Third Prize

SKILLS AND INTERESTSS

- Programming: Java, Python, C++,SQL, Matlab
- Language: English, Chinese-Mandarin(native)
- Interests: Basketball, Guitar