YUE NIU

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EDUCATION

Master of Information Technology, UNIVERSITY of NEW SOUTH WALES   Sep. 2021 - Aug. 2023
Major in AI Stream
Master of Applied Science, UNIVERSITY of WATERLOO   Aug. 2017 - Sep. 2019
Full Scholarship by Prof. Zhongwei Chen
Bachelor of Chemical Engineering, TIANJIN UNIVERSITY   Aug. 2013 - Aug. 2017

SKILLS

Languages	Advanced in Python, SQL, JavaScript; Proficient in HTML, CSS
Frameworks	Skilled in React, Flask; Experienced with Spring (MVC + Boot), Node.js
Machine Learning	Practical use of Scikit-learn, TensorFlow for ML applications
Development Tools	Proficient with Git, Jira, Docker, Postman; Competent in Figma, TailwindCSS
Database	Experienced in MySQL; Familiar with database management tools like MyBatis
Cloud Platforms	Proficient with AWS; Familiar with Tencent Cloud and Nginx deployment

RELEVANT PROJECTS

Eathub (Eatery Management System) | React.js, Flask, Docker, MySQL, Postman   2023
- Led a 5-member team to build the Eatery Management System, employing Scrum methodologies and Git for streamlined collaboration.
- Designed a modular frontend using React, leveraging advanced features like useState, useEffect, and React Router, while ensuring a responsive user experience with tools like Zustand, Tailwind CSS, MUI, and Figma.
- Developed a secure and scalable RESTful API with Flask, supporting CRUD operations, integrating WTForms for data validation, Flask-Login for authentication, and Flask-Blueprint for modularity. Utilized Postman for rigorous API testing.
- Prioritized application security using Flask-CORS and credentials, ensuring safe cross-origin requests and authenticated access.
- Participated in MySQL database design, including table creation, defining relationships, and setting primary and foreign keys. Utilized SQL queries for efficient data retrieval through joins and indexing.
- Crafted Docker files for seamless deployment and provided comprehensive software and API documentation to streamline frontend-backend integration.

Expandable Universal Account System | Spring Boot, React, MySQL, MyBatis, Docker, Nginx   2023
- Developed a User Center Management System using Spring Boot, React, and Ant Design, with seamless integration via Nginx.
- Architected backend framework, leveraging Spring frameworks and optimizing database interactions with MyBatis and MyBatis Plus.
- Implemented a custom *Global Exception Handler* to standardize error responses and enhance system security.
- Utilizing the *Double-Checked Locking Singleton Pattern* for efficient JSON object management, improving system performance.
- Designed and maintained a user database in MySQL, emphasizing secure and efficient user registration, login, and data retrieval functionalities.
- Orchestrated deployment using Docker and Nginx, with monitoring via aaPanel, ensuring streamlined application delivery.
- Enhanced frontend experience by tailoring the Ant Design Pro scaffold and encapsulating *Umi-Request* for stable UI interactions.
- Engineered robust multi-environment configuration with Spring Boot's *application-env.yml* configurations.

Starfish Identification | Hog+Svm, YOLO   2022
- Processed and augmented image datasets, ensuring diverse training samples for robust classification.
- Utilized Hog+Svm as a baseline and further refined identification accuracy with the optimized YOLO deep learning model.

Toxic Comment Classification | Decision Tree, LSTM, BERT, LSTM Keras, Sequential Keras   2022
- Preprocessed and tokenized text datasets, enhancing data readiness for model training.
- Employed a mix of traditional ML and deep learning techniques, with a notable improvement using fine-tuned BERT for emotion label classification.

RELEVANT EXPERIENCE

Data Engineer (Part-time)   Oct. 2022 - Dec. 2022

ePipeCloud, Adelaide, South Australia, Australia (Remote)
- Worked on the *Smart Cloud Service project*. Engineered data lakes and data pipelines to extract, transform, and load retail data.
- Developed a cloud recommendation system to process input data in batches, aiming to predict customer purchase behavior.

ADDITIONAL EXPERIENCE

Electrochemical Materials Researcher   Sep. 2019 - Nov. 2020

Waterloo Institute for Nanotechnology, Waterloo Institute for Sustainable Energy, University of Waterloo, Canada
- Led research in Electrochemical Materials; authored leading papers in the field.
- Contributed to modeling and theoretical calculations for collaborative papers.