YUE NIU

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CAREER PROFILE

- Proficient in Python, SQL, JavaScript; recently mastered React for key projects.
- Demonstrated leadership; steering teams to success through effective communication.
- Strong analytical skills; backed by research and journal publications.
- Diverse technical expertise spanning IT project management to advanced research.

EDUCATION

Bachelor of Chemical Engineering, TIANJIN UNIVERSITY — 2013 – 2017

Master of Applied Science, UNIVERSITY of WATERLOO — 2017 – 2019
Full Scholarship by Prof. Zhongwei Chen

PhD Candidate in Electrochemical Materials, UNIVERSITY of WATERLOO — 2019 – 2020
Full Scholarship by Prof. Zhongwei Chen

Master of Information Technology, UNIVERSITY of NEW SOUTH WALES — 2021 – 2023
Major in AI Stream

RELEVANT PROJECTS

Eatery Management System | React, Flask, Docker, MySQL, Postman — 2023
- Led a 5-member team to develop 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.

Smart Cloud Service | AWS Services — 2022
- Established a data lake and ETL processes; developed a recommendation system.
- Deployed ML solutions via AWS Sagemaker; ensured seamless API interactions.

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.

Starfish Identification | Hog+Svm, YOLO — 2023
- 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.

ADDITIONAL EXPERIENCE

Electrochemical Materials Researcher — Sep. 2017 – 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.

SKILLS

Technical	Python, SQL, JavaScript, React, Flask, AWS, Docker, ML, Image Processing, Git, Jira
Soft	Quick Learner, Leadership, Team Collaboration, Analytical Thinking, Communication