

YUE NIU

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EDUCATION

Master of Information Technology , UNIVERSITY of NEW SOUTH WALES <i>Major in AI Stream</i>	Sep. 2021 - Aug. 2023
PhD Candidate in Electrochemical Materials , UNIVERSITY of WATERLOO <i>Full Scholarship by Prof. Zhongwei Chen</i>	Sep. 2019 - Nov. 2020
Master of Applied Science , UNIVERSITY of WATERLOO <i>Full Scholarship by Prof. Zhongwei Chen</i>	Aug. 2017 - Sep. 2019
Bachelor of Chemical Engineering , TIANJIN UNIVERSITY	Aug. 2013 - Aug. 2017

SKILLS

Languages	Python, SQL, JavaScript, HTML, CSS
Frameworks	React, Flask, SpringMVC + SpringBoot, Node.js, Machine Learning, Scikit-learn, TensorFlow
Tools	Git, Jira, Docker, Postman, Figma, Flask Extensions, MyBatis, aaPanel
Platforms	AWS, Tencent Cloud, MySQL, Nginx

RELEVANT PROJECTS

Expandable Universal Account System Spring Boot, React, MySQL, MyBatis, Docker, Nginx	2023
<ul style="list-style-type: none">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 <i>Global Exception Handler</i> to standardize error responses and enhance system security.Utilizing the <i>Double-Checked Locking Singleton Pattern</i> 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 <i>Umi-Request</i> for stable UI interactions.Engineered robust multi-environment configuration with Spring Boot's <i>application-env.yml</i> configurations.	
Eathub (Eatery Management System) React, Flask, Docker, MySQL, Postman	2023
<ul style="list-style-type: none">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 <i>useState</i>, <i>useEffect</i>, 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.	

RELEVANT EXPERIENCE

Data Engineer (Part-time) ePipeCloud, Adelaide, South Australia, Australia (Remote)	Oct. 2022 - Dec. 2022
<ul style="list-style-type: none">Worked on the <i>Smart Cloud Service project</i>. 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. 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.