Yue Niu

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LinkedIn

EDUCATION

- **University of New South Wales** — Sydney, AU
  Master of Information Technology (AI Stream) — Sep. 2021 - Aug. 2023
- **University of Waterloo** — Waterloo, CA
  Master of Applied Science (Full Scholarship) — Aug. 2017 - Sep. 2019

SKILLS SUMMARY

- **Languages**: Expert in Python; Proficient in SQL, JavaScript, HTML, CSS
- **Frameworks**: Skilled in React, Flask; Experienced with Spring MVC, Spring Boot, Node.js
- **Machine Learning**: Applied machine learning with Scikit-learn, TensorFlow
- **Development Tools**: Proficient with Git, Jira, Postman; Competent with Figma, Tailwind CSS; Familiar with Docker
- **Database**: Experienced in MySQL; Database management with MyBatis
- **Cloud Platforms**: Familiar with AWS, Tencent Cloud; Deployment using Nginx

INTERNSHIP EXPERIENCE

- **ePipeCloud** — Adelaide, South Australia, AU
  Data Engineer intern (remote) — Oct. 2022 - Dec. 2022
  - **Agile Project Delivery**: Collaborated with an 8-member team using Agile practices, meeting all project deadlines and enhancing team efficiency with strategic Jira workflow management.
  - **ETL Performance Improvement**: Optimized AWS Glue ETL processes, implementing S3 data partitioning and concurrency adjustments, resulting in a 30% increase in pipeline performance and data throughput.
  - **Data Analytics and ML Integration**: Refined cloud-based recommendation algorithms, employing data cleansing and feature engineering, which elevated prediction accuracy by 15%, contributing to a 10% uplift in user engagement.

- **Henan Normal University** — Henan, CN
  Software Development Research Assistant Intern — Jan. 2021 - Sep. 2021
  - **Innovation Capability Evaluation System**: Participated in the agile development of a Learning Evaluation and Feedback System, contributing to key design decisions and improving development cycle efficiency by nearly 15%.
  - **Database Architecture**: Assessed and optimized ER diagrams and schemas, refined SQL queries, yielding a 35% surge in system capacity while maintaining peak performance levels.
  - **Full-Stack Software Development**: Engaged in full-stack development of a WeChat mini-program, implementing cloud-hosted services that resulted in a 30% surge in user retention and a 25% boost in system performance. Collaborated in a cross-functional team, fostering teamwork and effective problem-solving.
  - **Testing**: Drove comprehensive white-box testing, reducing user issues post-deployment by 40% and ensuring a more robust release cycle. Leveraged analytical skills to track and refine learning outcomes, enhancing the interactive teaching model.
  - **Launch and Optimization**: Supported the successful cloud-based system launch, managing over 1000 daily active users and refining learning outcomes tracking by 35%.

SELECTED PROJECTS

- **Eathub: A Comprehensive Eatery Service Platform** — Sydney, AU
  Group Lead — May. 2023 - Aug. 2023
  - **Agile Project Management**: Spearheaded a team of 5 to develop an Eatery Management System, boosting order efficiency by 20% and customer satisfaction by 15% using Scrum and Git.
  - **Front-End Development**: Architected a responsive front-end in React with state management and real-time updates, enhancing user engagement and operational agility.
  - **Back-End Development**: Engineered a RESTful API in Flask, ensuring secure data transactions and seamless integration, validated by extensive Postman testing.
  - **Security Implementation**: Implemented robust security protocols with Flask-CORS, safeguarding cross-origin resource sharing and user data integrity.
  - **Database Optimization**: Collaborated on MySQL database design, optimizing data retrieval and system responsiveness through strategic indexing and query optimization.
  - **Deployment and Documentation**: Orchestrated system deployment via Docker, complemented by meticulous documentation, facilitating a 25% improvement in front-end/back-end integration efficiency.

- **Expandable Universal User Account Management System** — Sydney, AU
  Sole Developer / Project Lead — July. 2023 - Oct. 2023

- **Project Development**: Conceived and programmed a User Account Management System designed to improve operational efficiency and user engagement. Tailored interface for intuitive user experience.
- **Technical Proficiency**: Executed full-stack development, from designing a MySQL database schema to implementing a reactive UI with React. Employed efficient data handling patterns such as Double-Checked Locking.
- **Testing and Security**: Integrated a comprehensive testing suite to validate all functionalities, ensuring robustness and reliability. Developed a standardized error handling protocol to enhance system security.
- **Deployment and Simulation**: Simulated a full deployment cycle in a cloud-based environment using Docker and Nginx, demonstrating the system's readiness for a live environment and its adaptability to various operational configurations.

- **Starfish Identification Deep Learning Project** — Sydney, AU
  Group Lead — *Sep. 2022 - Dec. 2022*
  - **Dataset Preparation**: Curated and enhanced underwater video datasets for a high-fidelity training set, pivotal for the accurate real-time identification of invasive starfish species.
  - **Model Development**: Pioneered the development of a machine learning pipeline using Hog+Svm for baseline object detection, then advanced to an optimized YOLO model, improving detection precision by 11%.
  - **Conservation Impact**: Contributed to the preservation of the Great Barrier Reef by enabling researchers to identify and manage the population of coral-eating crown-of-thorns starfish, aiding in the sustainability efforts of the reef's ecosystem.

- **Toxic Comment Classification ML Projectl** — Sydney, AU
  Group Lead — *May. 2022 - Aug. 2022*
  - **Data Preprocessing**: Enhanced data readiness through meticulous preprocessing and tokenization of text datasets, laying the groundwork for effective model training.
  - **Model Optimization**: Directed the integration of NLP techniques (Decision Tree, LSTM, BERT) to refine comment classification, outperforming baseline models in preliminary tests.
  - **Project Impact**: Fine-tuned BERT models to better distinguish nuanced toxic behavior, potentially reducing misclassification and promoting more respectful online discourse.