Simona(Nijia) Wu

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SUMMARY

A broadly skilled engineer with an interdisciplinary background, proficient in programming, data analytics, and deploying AI-driven technologies and a solid understanding of both database management and business value drivers. An effective communicator, team player, and self-motivated quick learner with a passion for optimizing business operations and turning data-driven insights into business strategies. Always willing to take on higher levels of responsibility.

QUALIFICATIONS & EDUCATION

Master of Science in Computer Software Engineering **Jan 2023 – May 2025**
Northeastern University, Seattle, WA | GPA: 3.9/4.0

Association of Chartered Certified Accountants (ACCA) member **Jan 2022**

Master of Financial Analysis **Feb 2017 – Feb 2018**
University of New South Wales, Sydney, Australia

Bachelor of Commerce (Accounting) **Oct 2013 – July 2016**
University of South Australia, Adelaide, Australia | GPA: **Distinction**

TECHNICAL SKILLS

Programming: Java, Python, SQL, HTML/ CSS, JavaScript, VBA

Technologies and Tools: AWS Cloud Services (Lambda, Rest-API, DynamoDB etc.), React, Node.js, Git, Jupyter, Pandas, NumPy, Java Spring, Shell, SAP, Microsoft Office software

Database management and design: MySQL, MongoDB, SQL Server, Lucidchart

Data Analytics and Data Visualization: Excel(Pivot Tables, Macros), Tableau, Power BI, Cognos, Stata

PROJECTS EXPERIENCE

When2Meet - Collaborative Scheduling Platform. **Apr 2024**

Topic: *Full-Stack Web Development, Time Zone Synchronization, RESTful APIs, React*

Developed a collaborative scheduling application to facilitate group meeting coordination, which **obtained 1st place in the class for excellent functionality, responsiveness and accessibility.** The platform features event creation, time zone adjustments, and a dynamic, color-coded visual calendar for availability tracking. Calendar UI is optimized for date and time continuity and server-side logics are implemented via Express.js to synchronize data efficiently across participants' varying local times. Managed all stages of software development, from initial design to deployment, delivering a robust and user-friendly application that integrates RESTful APIs. [Github Link]

Large Language Model Fine-tuning for a Dating Advice Application **Aug 2023**

Topic: *Pre-trained LLM, Data collection and curation, Training machine learning models*

Architected and implemented a dating advice application that provides customized advice for 16 distinct personality types. Utilized a pre-trained Large Language Model (LLM), enhancing its responses using personality-specific prompts. The model's performance was further optimized through targeted fine-tuning with a tailored dataset. This dataset was a strategic blend of public sources and proprietary data generated via the ChatGPT API, ensuring a tailored training foundation for the desired LLM adaptation. [Github Link]

React Web Application with AI-Driven Image Generation from Text Input **June 2023**

Topic: *Web application design, React, AWS-Lambda, AWS REST-API, Stable Diffusion Model, Integration of AI/ML models*

Developed an intuitive, responsive, and accessible UI/UX for a React-based web application that offers a full suite of web components. This application is integrated with a state-of-the-art Stable Diffusion Model to enable AI-driven image generation from user-defined keywords or phrases. The Stable Diffusion Model is wrapped into a Docker image and deployed as an AWS Lambda function to work as the backend. It is available through an AWS REST API endpoint. **This project received high praise from the teacher for combining web App with Generative AI.** [Github Link]

Sales and Logistic Database Design for Automobile Company **Jan 2023**

Topic*: Entity-relationship model design, SQL database normalization, database testing*

Designed and implemented an entity-relationship database in SQL to manage sales and logistics data for an automobile company. Integrated triggers and check constraints to uphold data integrity and accuracy. Leveraged Python to simulate sales and logistics records, populating the database, and subsequently assessed its performance against the predefined objectives. **Achieved the highest score** in the course for demonstrating exceptional database design tailored to real business scenarios and was **awarded an extra bonus mark** for showcasing a strong understanding of business concepts. **I was invited by the professor to serve as the teaching assistant for this course**

PROFESSIONAL EXPERIENCE

Sales Analyst, Kia Australia - *National Sales Planning and Logistics* **Aug 2019 – July 2021**

Designed a **keyword-based natural language processing tool** that automatically parses key features from retail and bonus data in spreadsheets, enabling automatic detection of data inconsistencies and **saving 95% of the human effort** required for bonus payment processing.

Collected and analyzed sales data on established and prospective customers, competitors, and market channels, and updated industrial sales figures for management. This analysis included using **machine learning model to detect both trending and seasonal patterns to forecast future sales** and aid in decision-making at a national level.

Prepared regular sales and operation reports that interpreting dealer order intakes, market results, consumer behaviors, distribution and trend, and converting data into actionable insights for senior management and business shareholders.