Wei, Chenhao

(607)379-3433 chenhao1227wei@gmail.com Ithaca, NY
GitHub: https://github.com/ChenhaoWei11

SKILLS AND CORE COMPETENCIES

Software Engineering (Java, C#, Python), Data Analysis (R, Python, SQL, Tableau), Agile, Retrieval-Augmented Generation (RAG), Project Management, Software Architecture Design, UX Research, Figma, Microsoft Office, Unity (2D Game)

EDUCATION

Cornell University, Master of Professional Study, *Information Science* **Ithaca, NY, US | August 2024 – June 2025**
Study Field: Data Analysis, Artificial Intelligence
GPA: 4.07/4.00

King's College London, Bachelor of Science, *Computer Science* **London, UK | September 2020 – May 2024**
Study Field: Software Engineering, Artificial Intelligence / Machine Learning
GPA: First Class Honours (74/100)

PROFESSIONAL EXPERIENCE

Rolls-Royce Motor Cars: *IT Infrastructure and Software Development Intern* **Chichester, UK | July 2022 – July 2023**

- Developed an Equipment Recycling Platform using C# and MySQL, reducing equipment costs and enhancing the UX through responsive interfaces via ASP.NET Core Razor Pages.
- Participated in the setup of Ethernet switches, considering bandwidth requirements, MAC address filtering and VLAN configurations, and the number of devices to optimize the network infrastructure.
- Proficiently utilized SAP ERP core functions to manage and streamline the procurement process for the production department, ensuring efficiency and process optimization.

Wicked: *Associate Developer* **Online | September 2023 – December 2023**

- Developed front-end web architecture, user flow, and designed a prototype website for an innovative e-commerce platform, ensuring the usability and visual appeal of the platform's interface
- Collaborated with a diverse group on platform functionality and UX improvements to enhance user engagement and accessibility, resulting in a more intuitive and seamless shopping experience

KEY PROJECTS

AI Virtual Assistant for Research Administration Support (On-going) **Ithaca, NY**

- Developed a virtual assistant leveraging Large Language Models (LLMs) and Retrieval-Augmented Generation (RAG) to provide on-demand support for Cornell's research administration knowledge base
- Designed and implemented a retrieval-based content access system that integrates multiple data sources, enabling faculty and staff to quickly locate relevant research administration information with improved accuracy and accessibility
- Implemented and refined machine learning pipelines that preprocess and classify research-related queries, fine-tune response generation models, and enhance the assistant's ability to dynamically adapt to evolving administrative needs
- Collaborated with a cross-functional team of AI developers and a product manager, aligning project outcomes with institutional needs and ensuring system scalability

Quantitative Data Analysis in R **Ithaca, NY**

- Conducted quantitative analysis on the relationship between forest micro-environmental factors and leaf morphology, uncovering correlations between environmental variables and leaf characteristics
- Developed a data preprocessing workflow in R to clean and standardize raw ecological data, addressing common issues such as missing values, format inconsistencies, and redundancies, ensuring high-quality data for analysis
- Designed and implemented various statistical analysis methods, using descriptive statistics and regression models to explore the impact of environmental factors on leaf morphology, through interactive visualizations (e.g., bar charts, line graphs) to present key findings intuitively

AHDC DataVision **Ithaca, NY**

- Conducted a data analysis project for the Animal Health Diagnostic Center (AHDC) at Cornell University's College of Veterinary Medicine, employing diagnostic data to uncover trends for strategic decision-making in diagnostics products
- Designed and implemented a data model in WhereScape to structure and organize data, facilitating efficient integration with the VetView Laboratory Information Management System (LIMS) via an ETL pipeline
- Utilized Tableau to visualize diagnostic data, identifying key trends and patterns that supported evidence-based adjustments to AHDC's business strategy

Atominer: Gamified Exam Platform - C# **London, UK**

- Designed and developed a gamified exam platform for middle school Chemistry, utilizing Unity and C# to incorporate game mechanics into traditional testing, alleviating student anxiety and enhancing engagement
- Created interactive game elements using Unity's physics engine, employing Rigidbody and Collider components to enable realistic atom-grabbing mechanics and enhance user interaction
- Developed a dynamic and intuitive user interface using Unity UI components, providing seamless interaction and real-time data updates