Enqi Jing

http://www.EnqiJing.uk

Email : Enqi.Jing@warwick.ac.uk
Mobile : +44-0754-1135-011
Github: https://github.com/jingenqi

Profile

I am an ambitious Master's candidate in Computer Science with a strong background in software development, machine learning, and cloud-based solutions, set to graduate in January 2025. I have proven experience in designing scalable systems, developing RESTful APIs, and creating data-driven solutions using Java, Python, and cloud technologies. I am proficient in Applied Mathematics at the university. I am a self-motivated problem solver with a passion for addressing complex challenges and driving innovation through collaboration. I am native in Simplified Chinese and proficient in English.

Education

- **University of Warwick** — Coventry, UK
  Master of Science in Computer Science; Distinction — *Oct. 2023 – Jan. 2025*
- **University of Warwick** — Coventry, UK
  Bachelor of Science in Computer Science; 2:1 Honours — *Sep. 2020 – Jul. 2023*

Work Experience

- **Shangu Cyber Security Technology Co., Ltd** — Zhengzhou, China
  Data Scientist, INTERN — *Jul. - Aug. 2023*
  Managed and optimized databases on Kylin OS, performed advanced Linux server administration and implemented virtualization technologies.
  - Managed and optimized MySQL, Oracle, and Kingbase8 databases within the Kylin OS, improving performance and ensuring data integrity.
  - Implemented virtualization technologies and Linux system administration, including LVM disk expansion, new disk mounting, NFS configuration, and common Linux commands for system optimization and efficient infrastructure management.
- **Saint Laurent Consulting** — Remote
  Business Intelligence Engineer, INTERN — *Oct. 2022 - Jan. 2023*
  Designed and implemented a scalable data pipeline and analytics dashboard for COVID-19 trends, leveraging Python, PostgreSQL, Flask, Tableau, and AWS to automate data collection, processing, and visualization.
  - Engineered an automated ETL pipeline using Python, BeautifulSoup, and Pandas for web scraping, with data efficiently stored in a PostgreSQL database, ensuring accurate and structured data management.
  - Built and deployed a real-time dashboard using Tableau and Flask, integrating data from RESTful APIs and implementing AWS infrastructure for scalable hosting and automated scheduling, reducing manual data collection by 95%.
- **Cyber Risks and Threats Associated With Vehicle to Grid** — Coventry, UK
  WMG, University of Warwick — *Jun. - Oct. 2022*
  Research Assistant, INTERNSHIP
  - Analyzed potential risks and threats to electrical grid from V2G integration, synthesizing findings to inform automotive grid interactions.
  - Evaluated security vulnerabilities in V2G systems, contributing to risk identification framework development.
  - Collaborated through weekly sessions to ensure timely completion of research milestones.

Projects

- **E-commerce System Development**
  Full Stack Engineer — *Mar. 2024 - Present*
  - Developed a full-stack e-commerce system using Django and React, integrating Django REST Framework (DRF) for backend API management and React for front-end data binding and dynamic routing with ReactRouter. Configured Webpack for asset bundling, implemented multilingual support, and connected to a MySQL database for data storage.

- Deployed the system in a production environment using UWSGI and Nginx, with automated deployment and remote execution through Ansible. Implemented unit testing, documentation with Sphinx, and continuous integration practices, ensuring robust and scalable system performance.

- **Leveraging Data-Driven Insights for Enhanced Aluminium Pressing Quality** Coventry, UK
  WMG, University of Warwick *Sep. 2023 - Oct. 2024*
  Research Assistant
  - Collaborative research project with a UK-based company, employing machine learning algorithms to investigate mechanical properties of aluminium alloys, focusing on analyzing pressing profiles and quality check data.
  - Conducted intensive data collection on aluminium press profiles and developed a DNN model achieving 15% increased prediction accuracy over SVR and Decision Tree models.
  - Analyzed noise variables using Local Outlier Filter (LOF), improving prediction accuracy by 20%, and achieved 10% improvement in DNN accuracy through regression model optimization.

- **Construction Data Analysing and Modelling** Coventry, UK
  Warwick AI Society, University of Warwick *Oct. 2022 - Mar. 2023*
  Research Assistant
  - Engineered a Chrome extension utilizing semantic analysis and topic modelling to distil sentiment from databases for enhanced data-driven assessment.
  - Crafted an NLP pipeline in Python incorporating sentiment analysis and topic modelling algorithms, optimizing model precision in structural health monitoring data.
  - Collaborated in a multidisciplinary team to implement data extraction via web API and refine text analysis methodologies.

- **Location Extraction and Movement Prediction from GPS Trajectory** Coventry, UK
  Department of Computer Science, University of Warwick *Sep. 2022 - Jun. 2023*
  Research Assistant
  - Enhanced trajectory prediction using clustering and LSTM deep learning models, proven effective on GeoLife and heterogeneous traffic datasets.
  - Implemented k-means and DBSCAN clustering models for road networks, achieving 10x improvement in execution time and accuracy.
  - Conducted comprehensive data pre-processing and model optimization for traffic pattern analysis.

- **Online Mentorship Management System**
  Backend Software Engineer *Jan. - Mar. 2022*
  - Designed and implemented RESTful APIs using Java Spring Boot, Spring Data JPA, and JWT for user authentication, session scheduling, and feedback collection, securing over 90% of API endpoints and increasing user engagement by 20%.
  - Developed efficient data models and repository patterns with MySQL, Spring Data JPA, and Hibernate, reducing query response time by 30% and improving database interaction performance.
  - Collaborated in an Agile environment, applying unit testing and custom exception handling with JUnit and Spring Security, reducing bug incidents by 15% and delivering key features 2 weeks ahead of schedule.

Skills and Expertise

Programming Languages: Python (Advanced), Java (Intermediate), SQL, HTML/CSS, C++, Swift, Go, C, React

Machine Learning & Data Science
* Frameworks: NumPy, Pandas, Scikit-Learn, PyTorch, Keras
* Techniques: Principal Component Analysis (PCA), Clustering, Convolutional Neural Networks (CNN), Residual Networks (ResNet), Recurrent Neural Networks (RNN), Time Series Analysis

Tools & Technologies: Git, Docker, Linux, PostgreSQL, Matlab, LaTeX

Mathematics & Modelling
* Expertise: Statistics, Mathematics, Linear Algebra, Graph Theory, Applied Mathematics, Numerical Analysis, Differential Equation, Probability, Matrix and Vector Theory, Fourier Analysis, Laplace Transform
* Techniques: Particle-Based Modelling, Numerical Computation

Domain Expertise: Trajectory Modelling, Emotion Classification, Predictive Analytics

Languages: English (Proficient), Mandarin (Native)

Professional Skills: Team Leadership, Project Management, Communication, Detail-Oriented

Course Projects

- Implementation of mentor and mentee communication System (Software Engineering Group Project).
- Implemented classical machine learning models for image classification, enhancing understanding of data-driven algorithms (Data Mining assignment).
- Prediction of Cellular Composition using CNN.
- Currently researching NeuralOperator with PyTorch, aiming to contribute novel findings to the field of consolidation characteristics (Ongoing Research Project).
- Distributed Regression Models for Appliance Usage Analytics
- Deep `CNN-LSTM` Networks for Electric Load and Wind Power Forecasting
- CNN based models for Social Network Analysis
- Supervised Layerwise training of `Deep CNNs` for Character and Document Recognition
- Deep Fully Connected Neural Networks for ECML-PKDD 2015 MLiLS Challenge
- Signature Recognition with High Pressure Points and One-Class Classifiers
- Image Moments and MLPs for Devnagari Character Recognition