

Zikai (Kerry) Liu

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EDUCATION

University of California, Berkeley

Master of Engineering in Industrial Engineering & Operational Research

Berkeley, U.S.

Expected May 2025

- **GPA:** 3.85/4.0 | **Award:** Fung Excellence Scholarship | **Modules:** Computer Vision (PhD), LLM Agents, Parallel Computing, Back-End Systems, Entrepreneurship (Haas) | **Activities:** GSI for NLP (Graduate), AI Affinity Group

University of St Andrews

Master of Arts (Honours) in Mathematics

St Andrews, UK

Sep 2020 – Jun 2024

- **GPA:** 3.8/4.0 (2nd Class Division I) | **Modules:** Machine Learning, Bayesian Statistics, Stochastic Process, PDE

SKILLS AND LANGUAGES

- **Technical Skills:** Python (PyTorch, TensorFlow, HuggingFace, Flask, bs4), Responses API, AWS (SageMaker, EC2, Lambda), Julia, RESTful APIs, Java, C++, CUDA, Docker, A/B Testing, SQL, Git, Spark, VBA, Power BI

WORK EXPERIENCE

VIP.com

Data Science Intern, E-commerce Product Technology R&D

Guangzhou, China

Jun 2024 – Aug 2024

- Led DeepSeek RAG zero-shot classifier integration to predict after-sales return responsibility from multimodal data preprocessing/FAISS embeddings, achieving 98% accuracy (human-level) in identifying customer-related issues
- Developed and optimized an end-to-end PySpark notebook to compare delivery times and costs for city-level users, using 2024 Q1-2 orders data. Reduced shipment time by 27% and increased customer satisfaction for northeast users

AMAZON

Business Analyst Intern, EU Customer Order Forecasting

London, UK

May 2023 – Sep 2023

- Engineered a distributed LightGBM model on SageMaker, yielding 5.2% MAPE and a 340 bps improvement in the T3W test for predicting FC shutdown volume drops, integrated into database to directly inform demand planning
- Initiated and deployed an automated, consolidated data pipeline for the cross-functional UK S&OP Bridge and Daily Outbound Reports 2.0 on AWS EC2, reducing query time by 70% for daily email dissemination to 100+ stakeholders.
- Collaborated with EU and CA teams to develop a 200-line MySQL query for network backlog analysis, streamlining data access and enabling faster, more informed product inbound decision-making for 20+ global team members
- Revamped daily Power BI dashboard with general ledger and ASIN-level velocity deep dive, improving customer demand prediction accuracy by 0.2% in network and 2% at GL level, enabling better product inventory management

Dark Matter Artificial Intelligence (DMAI)

Data Engineer Intern, Research Centre

Los Angeles, US (Remote)

Jul 2022 – Aug 2022

- Prepared 10GB of calligraphy data for YOLOv5 model through web scraping, ETL pipelines, and MongoDB storage
- Ensured data quality across 50+ labeling projects and 20+ cleansing Python scripts, cutting manual error rate by 20%

SCOR Ventures

Intern, Corporate Ventures Capital

London, UK (Hybrid)

Oct 2021 – Jun 2022

- Built and maintained 2 VBA-driven valuation & benchmarking templates using 10,000+ data points (PitchBook, Capital IQ), visualized insights in Tableau to support quarterly reviews, investment memos, and portfolio analysis

RESEARCH EXPERIENCE

Applify – Job Application AI Agent Assistant [\[Link\]](#)

Sep 2024 – Present

- Developed a scalable AI assistant automating job applications on Heroku via JS, Flask, and dynamic LLM routing with Jina crawling, delivering personalized templates—cover letters and emails—under 10 seconds at 3¢ per call.

Retail Time Series Forecasting with Deep Learning

Sep 2024 – Present

- Implemented DeepAR and encoder-decoder Transformer models in PyTorch to forecast 42,000+ retail series; engineered feature pipeline with calendar events and dynamic pricing, reducing forecast error by 25% across levels

Classification of PM Types to Understand the Job Market

Sep 2024 – Dec 2024

- Created a 9-category PM taxonomy with 2 industry experts; built a full-stack pipeline to classify 5,000+ Indeed jobs using data preprocessing and fine-tuned BERT models, achieving 67% F1 score comparable to GPT-4 CoT baseline