

Fangqing Yuan

Tel: +1 7344962122 Email: yfqcrazy@gmail.com LinkedIn: <https://www.linkedin.com/in/fangqing-yuan/>

MS Data Science & Bridge Champion with a strong foundation in **machine learning, statistical modeling, game theories, big data analysis and engineering**. Skilled in developing **robust models** and applying **AI-driven** solutions to complex problems

EDUCATION

University of Michigan, Ann Arbor, MI, USA

Aug 2021 - Dec 2024

Master of Data Science

- Course Highlights: Regression and Data Analysis, Data Mining and Statistics Learning, Natural Language Processing, Survey and Sampling Theory, Time Series Analysis, Data Manipulation and Analysis; Courses GPA: 4.0
- Project Highlights:
 - Applied **Partially Observed Markov Process** and **ARIMA** models to simulate and forecast MERS camel-human infection;
 - Developed **language models** to analyze non-native English learner corpora, improving automatic grammatical error detection.

Libera Università Internazionale degli Studi Sociali "Guido Carli" (LUISS), Rome, Italy

Sep 2018 - July 2021

Bachelor of Science in Management and Computer Science

- Full Scholarship, Graduated **110/110 Cum Laude**;
- Course Highlights: Social Network Analysis, Database, Machine Learning, Business Analytics, Finance, Economics, AI&HPC; Sep 2020 - Jan 2021, Erasmus Exchange Program @ **Katholieke Universiteit Leuven (KU Leuven), Leuven, Belgium**
Jun 2020 - Aug 2020, International Honors Program, **GPA: 3.88/4.00 @ Stanford University, Stanford, CA, USA**
- Project Highlights:
 - Conducted **regression** analysis and developed **innovative** methods for Bridge hand **evaluation**;
 - Simulated, visualized**, and analyzed computer virus propagation using **Sublinear Preferential Attachment Network**.

SKILLS

GITHUB: [HTTPS://GITHUB.COM/FREDFREDDO](https://github.com/FREDFREDDO)

- Programming Languages: **Python, SQL, C++, Java, R, MATLAB**, TypeScript, Bash
- **Data Processing, Analysis, Visualization**: (Pandas, NumPy, Matplotlib, Seaborn, Tableau, Power BI), **Machine Learning** (TensorFlow, PyTorch, Scikit-learn, XGBoost), **A/B Testing & Experimentation** (Causal Inference, Bayesian Statistics)
- **Big Data & ETL** (Spark, Hadoop, Hive, Kafka), **Database** (MySQL, MongoDB, Redis), **Cloud & DevOps** (AWS, Azure), **Version Control** (Git, Docker, CI/CD), **Web Crawling** (Scrapy, BeautifulSoup)

WORK EXPERIENCE

Institute for Social Research | Developer / Assistant | Ann Arbor, University of Michigan

May 2024 – Aug 2024

- Collaborated in developing IVEware software, a **data imputation** tool that may interact with R, SPSS, SAS, STATA;
- Implemented **ordinal regression** algorithm with gradient descent via C++; **Developed** categorical and ordinal data imputation by Multiple Imputation by Chained Equations (sequential regression) algorithm on social and biostatistical dataset.

Kuaishou (Kwai) | Machine Learning Engineer Intern | Beijing

Aug 2023 – Dec 2023

- Built and presented 15+ **weekly insights reports**, enabling data-driven decision-making for social **recommendations**;
- Designed and implemented user relationship recommendation strategies for **400 million users** using **C++ and Java**;
- Designed and deployed an **event streaming pipeline** using **Kafka and hive**, enabling **real-time** user behavior **analysis**;
- Automated **data log extraction, quality checks and anomaly detection** in ETL workflows using **Python and SQL**;
- Developed **high-performance data models** for **petabyte-scale** analytics, **reducing** inefficient user recommendations by **10%**;
- Mined information from **hundreds of petabytes** of user events log data using **SQL and python**;
- Conducted A/B testing, cleaned and processed data, **built and trained**:
 - **Machine learning** models to **classify** and **predict** user behaviors and preference, optimizing content recommendation;
 - **Causal models** to selected optimal strategies, **boosting** DAU (daily active users) by **0.1%**, and Lifetime 7 by **0.29 days**.

LEADERSHIP EXPERIENCE

Bridge Life Master

Sep 2011 - Now

- **Captain** of high school and junior national team, organized and promoted Bridge to **thousands** of students and members;
- **Multiple** national, continental, and international tournaments **Champion**;
- Developed an **AI-based** bridge bidding and playing system, **simulating** over 100,000 boards with **Double-Dummy Solver algorithms**, **storing** boards in data structure, **improving** game strategies by **20 International Match Points** per board.

WeResQ | Co-founder | Stanford

Jun 2020 - May 2021

- Led an international team **startup** to develop a **household food management app** to **minimize household food waste**;
- Conducted **surveys, market analysis and competitor research** to refine product strategy.