# Sijian (Raymond) Tao

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# **EDUCATION**

Cornell University Ithaca, NY

M.Eng. Operations Research and Information Engineering (Data Analytics track) | 3.88/4.00 Aug 2024 - Expected Dec 2025

• Relevant Courses: Machine Learning (Python), Database Management, Data Visualization (R), Data Mining, Statistical Analysis, Principles of Large-Scale ML, Service Sys Modeling & Design, Topics in Data Science, Big Data Technologies

University of Michigan Ann Arbor, MI

B.S. Mathematics & Statistics | GPA: 3.76/4.00 Aug 2022 - May 2024

Rensselaer Polytechnic Institute Troy, NY

B.S. Mathematics | GPA: 3.95/4.00 Aug 2020 - Jun 2022

#### PROFESSIONAL EXPERIENCE

Global AI New York, NY

Data Science & Machine Learning Intern

June 2025 – Aug 2025

- Analyzed 80+ countries under the Future Minerals Forum, combining 6 critical minerals production data with CPIA, RGI, FDI, and infrastructure indicators to assess investment potential across Africa, Central Asia, and the Middle East
- Built a scoring framework (1–6) to rank countries on critical mineral output and processing capacity, informing policy strategy and regional prioritization for government clients
- Created a copper mining company database linking asset location, ownership, capex, financials, and ESG metrics; visualized patterns and performed correlation analysis in R
- Automated an ETL pipeline using the EODHD API to extract and standardize metadata for 100K+ global equities, resolving ticker inconsistencies and formatting nested JSON into structured R data frames
- Delivered insights and clean datasets to support a government-backed critical minerals investment fund, enabling strategic asset selection and portfolio optimization

Soul Mates Bridal Seattle, WA

Business & Data Analyst Intern

Sep 2024 – May 2025

- Performed ROAS and campaign performance analysis across 600+ digital ads using Excel and SQL, identifying optimization opportunities that informed budget allocation and improved overall marketing efficiency
- Evaluated market size and demand potential for Asian-style vintage photography among Western audiences through social media analytics and competitor research to support expansion strategy
- Monitored Instagram marketing metrics—including impressions, click-through rate, and conversion rate—and presented
  weekly performance reviews with actionable insights, leading to a 10% improvement in campaign ROI
- Supported internal and external communication by synthesizing insights into clear recommendations, ensuring alignment between marketing strategy and business goals

Hirebeat

Jersey City, NJ

May 2022 Aug 2023

Data Analyst Intern

May 2023 - Aug 2023

- Developed and optimized recruitment data infrastructure by designing relational schemas and building 30+ SQL tables to track candidate pipelines, interview progress, and company engagement
- Built an ETL pipeline to centralize hiring data into MongoDB, enabling real-time analytics on recruitment trends and increasing data processing speed by 20%
- Cleaned and standardized 10,000+ candidate records to ensure data accuracy and improve the relevance of job-candidate recommendations for both users and client companies using AWS Glue
- Supported business stakeholders with clean, structured datasets that improved insight generation for candidate quality, hiring velocity, and campaign ROI

# PROJECT EXPERIENCE

## **Integrated Scheduling and Prediction**

Ithaca, NY

Capstone Project for Wegmans

*Nov 2024 – May 2025* 

- Reduced PO delays from 30% to 12% using Python and XGBoost to identify high-risk deliveries and reschedule with a custom AASA algorithm
- Built a Gurobi-based MILP model to optimize trailer usage by 38% and to increase load efficiency by 23%
- Generated dock-feasible schedules and proposed vendor scorecards, weekend ops, and automated dispatching to improve supply chain efficiency

## **SKILLS**

**Programming:** Python (Numpy, Pandas, Jupyter), R, Advanced Excel (Pivot Table), SQL, Spark, SPSS, Ampl, AWS Cloud **Analytical:** Machine Learning (Random Forest, LSTM, Regression), Deep Learning, Data Pipeline, Data Visualization (Tableau), Amazon Redshift, Clustering, Database Modeling, Github, Data Structure, Predictive models