

Yang (James) Liu
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Education

University of Wisconsin–Madison, Madison, WI
Master of Science in Industrial Engineering and Analytics August 2025 – May 2027

University of Wisconsin–Madison, Madison, WI
Bachelor of Business Administration September 2021 - May 2025

Majors: Operations and Technology Management; Supply Chain Management; Marketing

Professional Experience

University of Wisconsin-Madison, Madison, WI
Research Assistant May 2026 – Present

- Collaborated with Professor Xiaoyang Long and Professor Greg Decroix from Wisconsin School of Business in Sustainability and Operation Management Related topics.

Xi'an Jiaotong University, Hybrid
Research Assistant January 2026 – Present

- Collaborated with Professor Kui Jing and worked in portfolio optimization under the uncertainty of geopolitical risks, ESG rating, and Modern AI decision making.
- Utilized a wide-ranging analytical tools, including simulations, optimization, and LLM API to conduct both empirical and analytical research.

Xi'an Jiaotong University, Hybrid
Research Assistant September 2025 – Present

- Conducted research assistant work related to topology optimization in porous materials within Fluid Machinery Institute of School of Power and Energy Engineering.
- Utilized a set of analytical tools including MATLAB, CUMSOL, etc. to analyze experimental results and conduct simulation.

University of Wisconsin–Madison, Madison, WI
Food Recovery – Director, Nutrition Access Program September 2024 – May 2025

- Oversaw all program operations, volunteer coordination, and strategic direction of the Nutrition Access Program, ensuring consistent delivery of food support resources to students in need.
- Expanded program reach through cross-campus partnerships and refined policies to improve food recovery efficiency and sustainability impact.

University of Wisconsin–Madison, Madison, WI
Food Recovery – Assistant Director, Nutrition Access Program March 2023 – May 2024

- Led weekly meal-packaging sessions with Badger Volunteers, ensuring adherence to safe food-handling protocols and operational best practices.
- Designed and executed multi-platform marketing strategies—including social media content, graphics, and copy—to raise awareness of the Nutrition Access Program, food sustainability, and campus social-support resources.
- Developed and documented program policies and procedures to streamline food recovery operations and align initiatives with organizational goals.

Heritage Tile LLC, Verona, WI

Summer Operations Analyst

June 2024 – August 2024

- Utilized Excel Macro, Visual Basic, VLOOKUP, XLOOKUP, and Pivot Tables to build an automated shipment model for quarterly analysis, identifying invoice errors and optimizing shipment costs with over \$10,000 in annual savings.
- Implemented an automated abandoned cart email follow-up workflow within the corporate ERP system (Odo), improving customer re-engagement and sales recovery processes.
- Led the development of an automated inventory reporting system using Excel Macro, VBA, XLOOKUP, and IFERROR functions, significantly reducing manual reporting effort.
- Configured an automated bank report reconciliation workflow leveraging Microsoft Power Automate and Power Query, streamlining financial operations and reducing reconciliation time.
- Administered a Strategic Account Team dashboard to visualize sales performance metrics and pipeline activity, supporting data-driven decision-making for account management.

League of Women Voters, Madison, WI

Marketing & Brand Management Intern

September 2023 – December 2023

- Conceptualized and produced a targeted digital voting campaign to drive 2024 presidential election registration among key demographics.
- Analyzed social media engagement trends and applied integrated branding frameworks to strengthen and clarify the organization’s public-facing identity.
- Oversaw end-to-end campaign development and deployment across the League’s digital platforms, ensuring consistency of message and visual identity.

University of Wisconsin–Madison, Recreation & Wellbeing, Madison, WI

Staff Training & Development Intern

June 2023 – September 2023

- Assessed and ensured departmental compliance with federal, state, and local regulatory and reporting standards.
- Utilized Microsoft Excel and Power BI to prepare 10+ financial and operational reports for departmental decision-making.
- Contributed to the design and delivery of staff training materials, enhancing team readiness and operational consistency.

University of Wisconsin–Madison, College of Agricultural & Life Sciences, Madison, WI

Nutritional Science – Undergraduate Teaching Assistant

January 2022 – December 2022

- Supported course instruction by facilitating discussion sections and providing academic guidance to students across multiple course sections.
- Assisted in grading assignments and laboratory reports, offering constructive feedback to reinforce core concepts in nutrition and health science.
- Collaborated with faculty to develop supplementary course materials and ensure learning objectives were consistently met.

Leadership and Volunteering

Social & Environmental Business Advocates, Madison, WI

President

May 2024 – May 2025

- Established a sustainability resource page serving over 200 students, providing accessible information on sustainability programs, opportunities, and campus resources.
- Facilitated a Sustainability Panel Discussion with professors from the UW–Madison School of Business to explore academic concentrations in sustainability, share faculty insights, and empower students to engage meaningfully with sustainability initiatives.

Social & Environmental Business Advocates, Madison, WI

VP of Outreach

December 2023 – May 2024

- Spearheaded the Sustainability Networking Events series, fostering connections between students and employers around sustainable business practices.
- Facilitated a Sustainability Round Table bringing together university faculty, student organizations, and the Office of Sustainability to integrate sustainability content into academic curricula and explore opportunities for broader institutional impact.

Animals Epidemic Prevention and Veterinary Volunteer, Shaanxi, China

Veterinary Volunteer

June 2013 – June 2021

- Supported community epidemic prevention through vaccine distribution and agricultural health education delivered to local farmers over an eight-year period.

Skills and Certifications

- **Languages:** Full professional proficiency in English and Mandarin Chinese (spoken and written).
- **Certifications:** Lean Six Sigma White Belt & Yellow Belt; Microsoft Azure AI Fundamentals (AI-900).
- **Data & Analytics:** Proficient in Microsoft Excel, Power BI, Tableau, SPSS; experienced in data cleaning, visualization, and operational reporting.
- **ERP Systems:** Familiar with SAP fundamentals and ERP system concepts; hands-on experience with Odoo for business process management and operations.
- **Programming:** Proficient in R and Python for data analysis, statistical modeling, and automation; familiar with SQL and Snowflake cloud data platform.

- **Machine Learning:** Foundational knowledge and practical experience with core ML algorithms and model evaluation; proficient with scikit-learn (Python) and relevant ML libraries in R.
- **Operations Research & Optimization:** Proficient in linear programming and mixed-integer programming (MIP); hands-on experience formulating and solving optimization models using GAMSpy/GAMS and Gurobi/Gurobipy, including two-stage stochastic programming and sample average approximation (SAA), etc.
- **Quantitative Foundations:** Solid grounding in mathematical analysis, probability theory, stochastic processes (Markov chains, martingales, optional stopping), survival analysis, game theory, and political/policy analysis.
- **AI & Cloud:** Familiar with large language model (LLM) applications, prompt engineering, and API integration; working knowledge of Snowflake cloud platform.
- **Music Production:** Proficient in songwriting and music production using Logic Pro and Pro Tools; multi-instrumentalist.

Publication

- Topology optimization of embedded scatterers within wide opening composite meta-materials to enhance sound absorption performance.
- Phase-Change-Material-Assisted Wearable Thermoelectric Generators: A Review of Thermal Regulation, Thermal Matching, and Energy Harvesting

Relevant Coursework

- Math 221: Calculus and Analytic Geometry I
- Math 222: Calculus and Analytic Geometry II
- Math 340: Elementary Matrix and Linear Algebra
- Math 425: Introduction to Combinatorial Optimization
- OTM 427: Information Technology in Supply Chain
- Math 323: Vector and Complex Calculus
- CS/ECE 524: Introduction to Optimization
- Math/CS/STAT 525: Linear Optimization
- Math/STAT/OTM 632: Introduction to Stochastic Process
- CS/ECE 532: Matrix Methods in Machine Learning
- Math 540: Linear Algebra II
- ISyE 604: Digital Transformation

- Poli Sci 835: Game Theory and Political Analysis
- Stat/BMI 741: Survival Analysis
- BMI 571: Data Driven Healthcare
- ISyE 604: Digital Transformation
- ISyE/CS 723: Dynamic Programming and Associated Topics