

Jiacen Liu

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3420 Modesto Ln, Carmel, IN, 46074

EDUCATION

Purdue University

West Lafayette, IN

Triple Major: BS in Applied Statistics (1), Mathematics w/ Statistics (2), Industrial Management/Data Analytics (3)

Minor: Computer Science; Certificate in Applications in Data Science

Academics: GPA: 3.95/4.00 | Dean's List & Semester Honors

Courses: Data Mining, Data Visualization, Predictive Analytics, Database Management Systems, etc.

RESEARCH

Big Network Data Visualization Researcher

MI-LAB, Purdue University, West Lafayette, IN

Jan 2021 – Present

Website: <http://milab.cs.purdue.edu/>

Mentor: Chunyi Peng / Associate Professor, Purdue University

- Full stack web developer responsible for 4G and 5G mobile network data visualization
- Designed processes for cleanup and performance improvement that minimized downtime by 7%
- Extended current visualization features and test implementations on MI-LAB website
- Compared mobile network patterns in between geographic locations and time series via spatiotemporal analysis

Demand Forecasting Researcher

Meijer & Purdue University, West Lafayette, IN

Aug 2021 – Present

Title: "An Approach to Predict Demand for a Grocer's Most Challenging Products: Meat and Seafood"

Mentor: Matthew A. Lanham / Academic Director, Krenicki Center for Business Analytics & Machine Learning

- Developed predictive modeling workflow, allowing for thousands of forecasting experiments to be performed on meat and seafood products
- Created novel method to capture, share results, and summarize key findings of areas in where product forecast performance can be improved
- Collaborated with Meijer in-house Advanced Analytics Team to dissect performance across various metrics and provide new capabilities

Data Analytics Researcher

Teachers Credit Union & Purdue University, West Lafayette, IN

Dec 2020 – May 2021

Title: "A Novel Approach to Align Forecasts to Competing Operational Business Outcomes"

Mentor: Matthew A. Lanham / Academic Director, Krenicki Center for Business Analytics & Machine Learning

- Predicted daily cash consumed for each credit union branch with machine learning and statistical models
- Researched and developed a novel procedure of multi-criteria evaluation of demand forecasting models, which simultaneously considered error measures and business perspective metrics
- Generated business insights to further assist cash order decisions and minimize the operational issues of cash overages and shortages
- Coded a Shiny App in R language, now utilized directly by the TCU Analytics teams to identify the best forecast for their business deployment

Database Systems Architect

Famous Franks Food Trucks, West Lafayette, IN

Aug 2020 – Dec 2020

- Introduced system to allow for storing and tracking of data for more informed decision-making
- Set up and monitored how different operational conditions' effects on sales and costs
- Stored information about employees that will be useful in HR decisions
- Used analytics to model and predict on potential locations for business to test out

PROFESSIONAL

Data Science & Analytics Full Time Intern

Forkaia, Irvine, CA

Jun 2021 – Aug 2021

- Collected, analyzed, and interpreted data into useful strategies and identified patterns and trends in data sets
- Outlined application's requirements in terms of data structures, databases, outside APIs or resources, etc.
- Formalized, modeled, and created databases for easier search and query; defined new data collection and analysis processes.

Database Management Systems Teaching Assistant (20hrs/wk)

Purdue University, West Lafayette, IN

Aug 2020 – May 2021

- Led recitation section once a week and held office hours for individual student Q&As
- Guided students on applying lecture information to solve real world problems
- Worked as Subject Matter Expert in areas including ERD, relational schema, SQL, database design, data modeling, etc.
- Evaluated student performance, participated in 360-degree feedback process, and graded assignments

AWARDS

- 1st Place (Kaggle), Crossroads Classic Datathon 2021
- 2nd Place, Purdue Undergraduate Research Conference
A Novel Approach to Align Forecasts to Competing Operational Business Outcomes
- 1st Place, INFORMS Annual Business Analytics Conference 2021
- 3rd Place, Krenicki Poster Competition
Submitted, Operations Research and Management Science Tomorrow Mini Poster Competition
An Approach to Predict Demand for A Grocer's Most Challenging Products: Meat and Seafood

EXTRACURRICULARS

Event Planning Director

Purdue University Chinese Students and Scholar's Association

Aug 2019 – Present

- Supervised a team of 80 members and oversaw entire event planning process
- Planned and executed a minimum of six club events with 200+ attendees during each academic year
- Served in executive committee and provided leadership guidance, vision, and direction
- Maintained inter-club relationships with Purdue Student Activities and Organizations Office and hosted joint member meetings

Director of Communications and Media

Purdue University Dance Club

Nov 2019 – Present

- Served as host and presenter, as well as performer, at all events
- Co-planned all large-scale events, including galas and recitals

LANGUAGES & SKILLS

- **Technical:** Java, Python, R; Linux platforms: Ubuntu, Red Hat; MySQL, SQLite; Tableau, IBM Cognos, Snowflake; STATA, JMP Pro, R Studio, Jupyter Notebook, Visual Studio
- **Soft & Interpersonal:** Critical thinking, proactive problem solving, intellectual curiosity; Rapid decision-making, delegation, accountability, early planning, execution; Multi-disciplinary collaboration, conflict resolution, negotiation
- **Foreign Languages:** English (fluent), Chinese (fluent), Spanish (conversational)