

# Jeffrey Lu

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## EDUCATION

### University of Illinois Urbana-Champaign

Expected: May 2027

*Bachelor of Science in Computer Science, Minor in Statistics*

GPA: 4.00

**Relevant Coursework:** Machine Learning, Deep Learning for Computer Vision, Numerical Methods I, Intro to Algorithms and Models of Computation, Data Structures, Computer Architecture, Probability & Statistics for Computer Science, Discrete Structures, Multivariable Calculus, Computational Linear Algebra

## EXPERIENCE

### Molex LLC

May 2025 – Aug. 2025

*Supply Chain Software Engineer Intern*

*Lisle, IL*

- Led testing and development of Infor's AI/ML resolution engine during its beta launch, recommending proactive solutions for 10,000+ stockout inventory risks and generating over \$2.6M in value by the end of the internship
- Utilized SAP and Infor Nexus to analyze multi-grain datasets, driving insights for strategic supply chain decisions
- Designed and executed SQL and Excel queries on MRP systems to report and track key performance indicators
- Implemented Principle-Based Management to enhance decision-making with a focus on long-term value creation, comparative advantage, and self-actualization
- Produced training documents and videos to accelerate and facilitate cross-team knowledge sharing for 100+ users

### Quant@Illinois

Aug. 2024 – May 2025

*Quantitative Trading Analyst*

*Champaign, IL*

- Researched historical market data and trading strategies to identify emerging opportunities
- Developed and backtested pairs trading and momentum-based strategies using C++ and Python, yielding an 11% simulated portfolio return over 6 months

### Northwestern University

May 2023 – Oct. 2023

*Research Assistant*

*Evanston, IL*

- Assessed the effects of drilling holes of varying shapes and orientations on the quality of superconductors
- Developed and executed bash scripts in Unix to automate CUDA simulations of superconductor configurations
- Designed data pipelines in Python, using Matplotlib and NumPy for visualization and analysis of results
- Authored detailed technical reports and presented research findings at a university symposium

## PROJECTS

### NBA Predictive Model | *Python, SQL*

Dec. 2024 – Present

- Engineered a data acquisition pipeline using requests, pandas, and selenium to scrape player statistics from NBA.com and betting odds from sportsbooks into a SQLite database
- Developed a data pipeline to clean, structure, and preprocess raw data
- Applied statistical and machine learning models, including mean-variance analysis, ARIMA for time-series forecasting, and TensorFlow-based models, to predict player performance and betting outcomes
- Built correlation matrices and factor models to analyze relationships between player stats and betting lines

### MathWorks Math Modeling Challenge | *Python, MATLAB*

Feb. 2023 – Mar. 2024

- Cleaned and prepared large governmental datasets for analysis and model development
- Implemented an agent-based model and used Fourier transforms to simulate and forecast homelessness trends
- Developed a Random Forest model to recommend solutions, simulated reducing homelessness by 16% over 50 years
- Awarded Honorable Mention in Technical Computing: *top 5 out of 655*

## AWARDS & HONORS

**Dean's List:** Fall 2024 *Top 20%*

*2024 – Present*

**Chancellor's Scholar:** Campus Honors Program: *150 students selected per cohort*

*2024 – Present*

**AIME Qualifier 2x:** American Invitational Mathematics Examination, Math Olympiad: *Top 5000 in US* *2023–2024*

**NAC Qualifier:** National Astronomy Competition, Astronomy Olympiad: *Top 100 in US*

*2023*

## TECHNICAL SKILLS

**Languages:** C++, Java, Python, SQL, JavaScript, HTML/CSS, R, PHP

**Frameworks and Libraries:** React, Tailwind, Pandas, Scikit-learn, NumPy, Matplotlib, TensorFlow

**Developer Tools:** Git, Docker, VS Code, Visual Studio, Anaconda, Unix/Linux, Jupyter Notebook, Excel, EveryAngle