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 focusing on last-mile delivery strategies
- Designed and executed SQL and Excel queries on MRP systems to report and track key performance indicators
- 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 process using requests, pandas, and selenium to scrape player statistics from NBA.com and betting odds from sportsbooks into a SQLite database
- Developed and implemented 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