

Poonam Sahoo

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EDUCATION

Stanford University, *Stanford, CA*

M.S. in Computer Science, Artificial Intelligence Specialization. GPA: 4.04

Expected June 2026

Relevant Coursework: Self-Improving AI Agents, Machine Learning, Deep Learning, Natural Language Processing

Teaching Assistant for CS 224W (Machine Learning with Graphs), Fall 2025

B.S. in Mathematics. GPA: 3.92

June 2025

Relevant Coursework: Statistical Inference, Algorithms, Probability Theory

Organizations: Resident Student Leader of Okada House, Rewriting the Code, Out in STEM, South Asian Society

SKILLS

Python (Pandas, NumPy, PyTorch), R, SQL, Javascript, Typescript, Svelte, C/C++, QGIS/arcGIS

RELEVANT EXPERIENCE

Notion, Data Science Intern, *San Francisco, CA*

January 2026 - April 2026

- Analyzing trial campaigns and unifying eligibility criteria across 300,000 different workspaces, providing recommendations to cross-functional stakeholders (Monetization, Marketing, etc.)

Reddit, Data Science Intern (Ads Data Science), *San Francisco, CA*

June 2025 - September 2025

- Built a Markov Chain framework for modeling user lifetime value of logged-in Reddit users in SQL and Python
- Collaborated with cross-functional stakeholders (Consumer, Ads Engineering) to define ambiguities and remain aligned on model goals and output
- Backtesting on an ad-load experiment showed the Markov Chain model predicted future user behavior (churn, retention, etc.) with a 40-60% reduction in error metrics (RMSE, Cross Entropy Loss) compared to the baseline for a 90-day prediction period

Goldman Sachs, Quant Strats Software Engineering Intern, *New York, NY*

June 2024 - August 2024

- Interface with traders to build quantitative trading strategies and automate trader workflow in Python and Slang (Goldman's proprietary language)
- Recalibrate part of credit risk model for liquidation of government bonds, reducing fees for 60% of hedge fund clients while still covering 99.7th percentile risk events
- Build backtesting system for determining which day US-based indices reinvest their dividends

Belvedere Trading, Junior Quantitative Trading Analyst Intern, *Chicago, IL*

June 2023 - August 2023

- Analyzed tick by tick market data to determine optimal hedge execution strategies for Tesla, Meta, Amazon, and Apple stocks while minimizing risk and maximizing PnL
 - Proposed hedge execution strategy with estimated daily PnL of \$10,000 and high risk-adjusted returns relative to naive benchmark
 - Constructed trading infrastructure in Python for backtesting and keeping track of past trade decisions and risk
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RESEARCH PROJECTS

Refractor: Steerable Live Clustering for Speaker-Audience Understanding

January 2024 - December 2025

- Built a user-steerable LLM clustering algorithm updating in real time to support speaker-audience interaction
- Incorporated this novel algorithm into a webapp piloted to an audience of over 100 students
- Presented demo abstract at UIST 2025 (first-author project)

WEAVER Augmented: Optimizing Verifier Selection

September 2025 - December 2025

- Proposed an augmented WEAVER algorithm for weak verifier selection that reduced inference compute while achieving accuracy gains on benchmark datasets such as MATH-500 for smaller generators (Llama 8B)

U.S. Newspaper Polarization via Heterogenous GNNs

September 2024 - December 2024

- Supplemented a newswire dataset with webscraped election results using BeautifulSoup and geocoder API
 - Training a heterogenous GNN consisting of newspaper articles and newspaper outlets to form clusters of similar newspaper outlets. Goal is to observe political polarization across decades (e.g. 1920s vs. 1960s)
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HONORS AND AWARDS

6x American Invitational Mathematics Exam Qualifier (Highest score: 9)

2016 - 2021

Top 1% of AMC test-takers (Highest score: 145.5)

2017 - 2019