Ishaan Goel

+1 771-201-7576 | igoeldxb@gmail.com | linkedin.com/in/igoeldc | github.com/igoeldc

Summary

AI Researcher and developer with deep quantitative foundations. Seeking to apply expertise in generative AI and stochastic modeling to solve complex problems in Natural Language Processing and Quantitative Finance.

Education

Illinois Institute of Technology (3.73/4.00)   Aug 2022 – Present
  Dual B.S. Applied Mathematics and Data Science, Finance Minor
  M.A.S. Artificial Intelligence
    Heald and STEM+ Scholarships Recipient

Relevant Coursework

Math: Probability, Linear Optimization, Stochastic Processes, Graph Theory, Monte Carlo Methods in Finance, SPDEs, Real Analysis, Abstract Algebra, Combinatorics, Dynamical Systems, Functional Analysis (audit)

AI/ML: Machine Learning, Statistical Learning, Natural Language Understanding, Artificial Intelligence, Information Retrieval, Data Mining, Algorithms, Database Organization, Game Theory (audit)

Finance: Economics of Capital Investments, Principles of Economics, Accounting

Planned (Spring 2026): Quantitative Risk Management, Stochastic Analysis, Statistics, Data Science Projects

Experience

Illinois Institute of Technology, College of Computing   Chicago, IL
Research Assistant   May 2025 – Present
Under Dr. Michael Pelsmajer
  Making a Markov Chain sampler in Python to generate uniform random hypergraphs with the same k-core sequences.

Illinois Institute of Technology, Department of Applied Mathematics   Chicago, IL
Research Assistant   Aug 2024 – Present
Under Dr. Igor Cialenco, NSF-funded research
  Applying concepts from stochastics, reinforcement learning and game theory to model groundwater rights pricing and assess policy impacts for water markets by integrating mathematical theory with hydrological and economic data.

PeopleStrong Technologies Ltd.   Gurugram, India
Intern   Jun 2025 – Jul 2025
  Built a scalable RAG-based system for Automated Ticket Resolution, enabling document-grounded Q&A for 1,000+ employees and reducing index testing time by over 200x (weeks to hours). Gained hands-on experience in deploying production-ready agentic AI systems and accelerating iteration cycles through automation and containerization.
Intern   Jul 2024
  Designed and deployed a scalable LLM-based chatbot with an agentic architecture integrating 5+ RAG systems, validated via A/B testing and approved for company-wide rollout.

Projects

Natural Language Understanding Projects | *NLP, Python*   Aug 2024 – Dec 2024
  Built NLP models from scratch: a probabilistic language model, a Naïve Bayes classifier, and a kNN classifier.

Leadership Roles

President, Machine Learning at Illinois Institute of Technology (ML@IIT)   Jan 2023 – Present
  Scaled organization from small group to 250+ active participants, hosting workshops and speaker events on AI/ML.

Vice President, Society for Industrial and Applied Mathematics (SIAM) Chapter at IIT   Dec 2022 – Present
  Spearheaded initiatives connecting students to research opportunities in applied mathematics by hosting professor talks and organizing networking events for students across multiple disciplines related to mathematics.

Skills

Programming: Python, R, Julia, C++, Java, LaTeX, HTML, CSS, SQL, Mathematica, MATLAB

Python Stack: PyTorch, scikit-learn, NumPy, pandas, matplotlib, NetworkX

R Stack: tidyverse, caret, rpart, glmnet, e1071, keras

Spoken Languages: English, Hindi-Urdu, Mandarin Chinese, Spanish, Modern Standard Arabic, Punjabi

U.S. Citizen