

Eugenia (Yujia) Cao

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EDUCATION

Northwestern University

Evanston, IL

B.S. in Industrial Engineering, Combined M.S. in Computer Science, Segal Design Certificate Expected June 2026

- GPA: 3.92/4.00, Major GPA: 4.00/4.00, Murphy Scholar of McCormick School of Engineering
- Coursework: Data Structures and Algorithms, Probability, Statistics, Machine Learning, Database Management
- Others: CS Peer Mentor, Bay Area Media Technological Innovation Program, Society of Women Engineers

EXPERIENCE

Software Engineer Intern

June 2023 – August 2023

DataYes Inc., AI Engineering/NLP Team

Beijing, China

- Collaborated closely with intern mentor to led the backend development for a multi-turn dialogues system in an Investment Research Assisting Chatbot, aligning closely with structured product requirement
- Spearheaded multi-task training on ChatGLM2, a bilingual language model, employing QLoRA and pre-training techniques to enhance financial news analysis, replacing the previous RoBERTa-based solution
- Conducted in-depth research to select base models, analyzing academic papers for performance comparison, and communicated findings through testing report

Undergraduate Research Assistant

March 2023 – Present

Technological Innovations for Inclusive Learning and Teaching (Tiilt) Lab

Evanston, IL

- Develop a real-time discussion feature through the implementation of extractive and abstractive NLP models
- Investigate quantitative discourse analysis in group communication transcripts, with a focus on capturing temporal alignment, sequential ordering, and coordination of meaning, etc.
- Contribute to UI development and design, enhancing user-friendliness and accessibility

Junior Quant Developer

October 2022 – Present

Northwestern Financial Technologies Club

Evanston, IL

- Develop and implement a reliable data parser to process raw financial data for back-end testing
- Build deep learning models for order book feature extraction and prediction generation
- Work closely with senior developers to analyze resulting backtests and execution logs to improve future algorithms

Web Developer

January 2023 – November 2023

The Daily Northwestern

Evanston, IL

- Develop landing pages and interactive features to showcase content from special issues, reaching 30,000+ readers
- Lead the redesign of the official website and provide ongoing technical support and training to all team members
- Collaborating with Chicago Maroon, develop a user-friendly webpage creation tool for general reporters

PROJECTS

Telegram Data Fetching and Documentation | *Python, SQLite, Telegram API*

Oct 2023 – Present

- Side project under Meedan, help documenting diverse media files and records in open Telegram group chats
- Facilitating comprehensive data retrieval, database refraction, and data file integration
- Implementing a data file linking feature, with the goal of streamlining automatic data fetching to S3 platforms

QuickTrace: AI Semantic Search Tool for Journalists | *Streamlit, LlamaIndex*

June 2023 – August 2023

- Collaborate in a post-hackathon team of 7 to develop QuickTrace, a multi-source web application capable of refining journalistic research by supporting various forms of data including PDFs, URLs, audio, and text
- Optimize the core search algorithm for retrieving question-related information using indexing and embeddings

TECHNICAL SKILLS

Programming Languages: Python, R, SQL, HTML/CSS, React.js, C/C++, MatLab, Racket, \LaTeX

Tools & Technologies: Pandas, PyTorch, LangChain, Docker, CUDA, Azure, WordPress, Git, Jupyter, MongoDB

HONORS AND AWARDS

Finalist - International Mathematical Modeling Challenge (2021); **Regional Top 100 Individual** - American Regional Mathematics League (2020, 2021); **National Bronze** - International Olympiad of Linguistics (2020)