

# Glen Miasnychenko

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Skokie, IL | 312-927-6827 | glen@miasnychenko.com

## Work Experience

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**Jr. AI Engineer** | OpticsPlanet | Northbrook, IL | January 2025 – to date

*Transformer-Based Recommendation System Development*

Key contributions:

- Researched transformer-based recommendation models including SASRec and BERT4Rec architectures
- Developed prototype systems and trained them on MovieLens dataset to compare performance metrics
- Implemented production-ready BERT4Rec training pipeline deployed on cloud infrastructure, driving a 13% increase in click-through rate and 3% increase in AOV

Technologies used: BERT4Rec, SASRec, PyTorch, Google Cloud (GC), AWS, Transformers

**AI Engineer Intern** | OpticsPlanet | Northbrook, IL | Summer 2024

*Retrieval-Augmented Generation (RAG) System Development*

Key contributions:

- Integrated vector storage with pre-trained sentence-transformer models for document chunking, embedding, and efficient search
- Customized document processing pipeline for Markdown-based Confluence articles
- Build a conversational module utilizing various LLM
- Refined indexing and embedding logic to optimize performance, enabling real-time query responses

Technologies used: PyTorch, OpenSearch, Docker, Confluence API, Flask, Llama3 models, OpenAI API, Sentence-transformers

## Education

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**Roosevelt University, College of Arts and Sciences** | Honors Program | Chicago, IL

*Bachelor of Arts in Actuarial Science, Minor in Finance* | December 2024

- Relevant coursework: *Regression & Time Series, Probability Theory, Linear Algebra, Mathematical Statistics, Financial Mathematics*

## Related Projects

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*Neural Network for Microplant Classification* | Roosevelt University | Spring 2024

- Collaborated with the Field Museum to classify microplants using a dataset of images provided by the museum
- Developed and implemented a convolutional neural network (CNN) from scratch to perform the classification
- Handled all aspects of data processing, including parsing, cleaning, and downloading images using Python scripts
- Achieved a peak validation accuracy of 65.84% using advanced techniques such as data augmentation, dropout layers, and regularization
- Automated hyperparameter tuning with Hyperband to optimize model performance

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*Research on Robinia pseudoacacia* | Prague University | Spring 2023

- Assisted with statistical analysis of a peer-reviewed research
- Conducted the Tukey statistical test with appropriate checks
- Performed the analysis using SPSS Statistics and later recreated using R

*Walmart Sales Analysis* | Roosevelt University | Fall 2023

- Lead a project on modeling the Walmart quarterly sales
- Employed various statistical methods such as Decision Trees, Best Subset Selection (Ridge and Lasso), Forest Model for comprehensive data analysis
- Determined the relationship between the key macroeconomic factors and the Walmart sales

*Bookkeeping Application* | Personal Project | Fall 2023

- Developed a full-stack personal bookkeeping application using Django framework
- Implemented key features such as transaction tracking, account balance updates and financial summaries with user-friendly interfaces
- Migrated the application to run on a Kubernetes (k3s) cluster, improving scalability and enabling smoother deployment
- Utilized MySQL as the database backend, configured distributed environments, ensuring data consistency and optimized performance
- Dockerized the application for containerized deployment and streamlined application updates

## Certifications

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*IBM Data Science* | Coursera | January 2024

*IBM AI Engineering* | Coursera | August 2024

## Awards

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*Student Laureate* | Lincoln Academy of Illinois | October 2024

Selected as a Student Laureate by the Lincoln Academy of Illinois, an honor awarded to one outstanding senior from each college in Illinois for exceptional academic achievement, campus leadership, and community service.

## Technical skills

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- *Python*
- *Django and Flask*
- *R*
- *Kubernetes (k3s)*
- *MySQL*
- *Docker*
- *Linux Server Administration*
- *RAG*
- *Git*
- *Deep Learning*
- *Vector Databases*
- *CI/CD*
- *LangChain*
- *Golang*