

VICKEY GHIMIRE

jung.vickey@gmail.com • [linkedin.com/in/vickeyghimire](https://www.linkedin.com/in/vickeyghimire) • [junggeyy.github.io](https://github.com/junggeyy)

EDUCATION

M.S. in Geospatial Information Science

The University of Texas at Dallas

Incoming Fall 2026

Richardson, TX

B.S. in Computer Science

Northern Kentucky University

Minors: Mathematics and Information Technology

08/2022 - 05/2026

Highland Heights, KY

GPA: 3.94/4.0

EXPERIENCE

Undergraduate Research Assistant- *Data Analytics*

Human-Computer Interaction Lab, NKU

10/2024 – 05/2026

Highland Heights, KY

- Architected a novelty-detection framework combining lexical (Jaccard) and semantic (BERT-based) similarity measures to auto classify LLM-generated content, reducing manual review burden from **32.8%** to **3.1%** across **31,000+** generated topics.
- Conducted analysis of ChatGPT's early memory feature through a survey of **135+** users and privacy review of **55+** accounts, revealing critical gaps in user awareness and data handling practices.
- Co-authored 3 peer-reviewed papers, leading data analysis pipelines including preprocessing, statistical modeling, and charts/table generation for result communications.

Full-Stack Django Developer

Department of Physics, Geology and Engineering Technology, NKU

11/2025 – 05/2026

Highland Heights, KY

- Engineered a modular, class-based Django architecture refactoring a legacy tool into a MTV-compliant web platform, with secure authentication and profile-based data persistence via SQLite3.
- Developed dynamic data pipelines integrating NASA and OSM APIs, replacing static spreadsheet data extraction with location-specific environmental inputs for optimization workflows.
- Enhanced energy system optimization (NGA-III) efficiency by **~35%** through convergence-based termination and implementation of a result-caching structure.

Undergraduate Teaching Assistant- *Data Structures & Algorithms*

College of Informatics, NKU

08/2025 - 12/2025

Highland Heights, KY

- Mentored **40+** students through weekly office hours, providing conceptual clarification, debugging support, and organized coding sessions to reinforce core concepts.
- Collaborated with instructor to develop comprehensive test cases for Java programs, design assessment rubrics, and streamline grading workflows.

PUBLICATIONS

Ghimire, V., Lama, J. S., Dhungana, B., Sadat, N. & Caporusso, N. (2025). *Benchmarking LLMs for Content Expansion: Measuring Novelty in Iterative Course Outline Generation*. In *Proceedings of the 2025 Information Systems & Computing Academic Professionals (ISCAP)*. Louisville, KY [\[link\]](#)

Ghimire, V., Lama, J. S., Dhungana, B., Sadat, N. & Caporusso, N. (2025). *Evaluating Output Novelty in Iterative Prompting in Educational Content Generation*. In **Proceedings of the 2025 17th International Conference on Education Technology and Computers (ICETC)**. Spain. IEEE. [\[link\]](#)

Sadat, N., Caporusso, N., Doan, M. H., **Ghimire, V.**, Dhungana, B., & Lama, J. S. (2025). *Analysis of the Content of ChatGPT's Memory: Types of Information, Security Implications, and User Perception*. In **Proceedings of the 2025 48th ICT and Electronics Convention (MIPRO)**. Croatia. IEEE. [\[link\]](#)

PRESENTATIONS

Oral

Ghimire, V., Lama, J. S., Dhungana, B., Sadat, N., & Caporusso, N. (September 2025). *Evaluating Output Novelty in Iterative Prompting in Educational Content Generation*. Oral presentation (virtual) at the **17th International Conference on Education Technology and Computers (ICETC)**, Barcelona, Spain.

Ghimire, V., Sadat, N., Caporusso, N., Doan, M. H., Dhungana, B., & Lama, J. S. (June 2025). *Analysis of the Content of ChatGPT's Memory: Types of Information, Security Implications, and User Perception*. Oral presentation (virtual) at the **48th MIPRO ICT and Electronics Convention**, Opatija, Croatia.

Poster

Ghimire, V., Dhungana, B., Sadat, N., Caporusso, N. (April 2026). *Measuring Novelty and Relevance in Iterative Prompting in Educational Content Generation*. Poster presented at the **NKU Celebration of Student Research & Creativity**, NKU, Highland Heights, KY.

Ghimire, V., Dhungana, B., Lama, J. S., Sadat, N., Caporusso, N. (August 2025). *From Outline to Comprehensive Syllabus: Evaluating Consistency in Iterative Prompting*. Poster presented at the **Heather Bullen Summer Research Celebration**, NKU, Highland Heights, KY.

Ghimire, V., Dhungana, B., Lama, J. S., Sadat, N., Caporusso, N. & Doan, M. H. (March 2025). *Investigating ChatGPT's Memory: A Cybersecurity and Privacy Perspective*. Poster presented at **NKU Celebration of Student Research & Creativity**, Highland Heights, KY.

TECHNICAL SKILLS

Geospatial	QGIS, GeoPandas, Shapely, OSRM/Mapbox API, DEM Analysis
Programming	Python, Java, C++, JavaScript, SQL
Data & ML	PyTorch, Pandas, Keras, TensorFlow, Numpy, Transformer models, Vector DBs
Frameworks	FastAPI, Django, Spring Boot, React, Leaflet, LangChain

PROJECTS

Disaster-Aware Road Risk Viewer | *GIS Framework*

→ A geospatial decision-support platform to visualize seasonal landslide and flood risks across Nepal's road networks by synthesizing OpenStreetMap vectors, terrain analysis, Digital Elevation Models (DEM), and historical precipitation datasets. [\[GitHub\]](#)

Predictive Maintenance System | *Machinery Failure Forecasting*

- A failure-prediction pipeline for industrial machinery utilizing a two-stage Random Forest architecture for Failure classification and Remaining Useful Life (RUL) prediction; features a production simulation environment integrated with MCP servers to enable LLM-driven diagnostics and streamlined maintenance scheduling. [[GitHub](#)]

Stock Insights | *ML-Driven Portfolio Analysis*

- A cross-platform Android application for real-time market data streaming and portfolio management, featuring secure user authentication and interactive data visualizations, featuring 14-day trend predictions and candlestick charting to facilitate technical analysis. [[GitHub](#)]

AWARDS & CERTIFICATIONS

John Forrest Kain Scholarship, UT Dallas (2026)

Best Presentation Award, ICETC. (2025)

EDGE Award, Northern Kentucky University

President's Honors List, Northern Kentucky University

Fundamentals of Deep Learning, NVIDIA

SERVICE & LEADERSHIP

- Business Services Supervisor, NKU Campus Recreation (2023- 2026)
- Student Leadership Committee, NKU Campus Recreation (2024-2025)
- NKU Physics, Engineering, and Astronomy Club (2024)

REFERENCES

Nazmus Sadat, Ph.D.
Assistant Professor, NKU
sadatn1@nku.edu

Nicholas Caporusso, Ph.D.
Associate Professor, NKU
caporusson1@nku.edu

Zeel Maheshwari, Ph.D.
Associate Professor, NKU
maheshwarz1@nku.edu

Junxiu Zhou, Ph.D.
Assistant Professor, NKU
zhouj2@nku.edu