

# AASHISH POKHREL

✉ apokhrel@uwyo.edu | 🏠 ashishpokhrel27

## RESEARCH INTERESTS

---

**Topics:** Vision-Language Models, Multimodal Reasoning, Data Engineering & Analytics.

I am interested in improving the logical reasoning capabilities of multimodal systems—particularly how Vision-Language Models understand negation and compositional concepts.

## EDUCATION

---

### University of Wyoming

*Master of Science, Computer Science*

*Aug 2025 –*

Advised by Dr. [Shivanand Venkanna Sheshappanavar](#)

### Tribhuvan University

*Bachelor of Engineering, Computer Engineering*

*Dec 2016 – Jan 2021*

## PUBLICATIONS

---

- [Aashish Pokhrel](#), Bipin Ghimire, Prashanna Mani Poudel, “Negation in Vision-Language Models: A Survey,” *ICPR 2026*.
- [Aashish Pokhrel](#) and Shivanand Venkanna Sheshappanavar, “Negation Matters: Training-Free Negation-Aware Image Retrieval,” *GRAIL-V Workshop, CVPR 2026*.

## WORK EXPERIENCE

---

### University of Wyoming, Laramie, WY

*Graduate Research Assistant*

*Aug 2025 –*

- Researching Vision-Language Models (VLMs) with a focus on improving negation awareness and compositionality, which includes developing training-free frameworks like SpaceVLM-DRC using LLM-based decomposition and dynamic repulsion to achieve state-of-the-art results in image retrieval.

### Ycotek, Minneapolis, MN

*Data Engineer Consultant*

*Jan 2025 – Jul 2025*

- Developed Power BI dashboards and Snowflake pipelines (ADF, Python), enhancing recruitment funnel analytics and improving data performance by 30–40%.

### Logic Information Systems, Bloomington, MN

*Data Engineer (Business Intelligence) Consultant*

*Aug 2022 – Jan 2025*

- Architected and maintained 100% reliable, end-to-end ETL/ELT pipelines and executive dashboards (Python, Snowflake, Airflow, Tableau) for Fortune 500 retailers, integrating RFM and time-series models that informed cross-functional supply chain decisions while reducing QA time by 25%.

## TECHNICAL SKILLS

---

### Languages & AI Frameworks

Python, R, SQL, C++ | PyTorch, TensorFlow, scikit-learn

### Databases

Snowflake, Google BigQuery, PostgreSQL, MySQL, Redshift, SQL Server

### Data Engineering

ETL/ELT, Pandas, PySpark, Apache Airflow, Hadoop, dbt, Data Warehousing

### Reporting & BI

Tableau, Power BI, MicroStrategy, MS Excel

### Cloud

GCP, AWS (S3, Lambda), Microsoft Azure

### Tools

Git, Jira, UML, ~~La~~TeX, Scrum/Agile

## LEADERSHIP & SERVICE

---

- **Joint Secretary**, i-CES Nepal (2019–2021): Coordinated technical events, workshops, and student outreach initiatives.