

Jeevan Thapa

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RESEARCH INTERESTS

Continual Learning — Sequential User Modeling — Test-time Adaptation — Parameter-Efficient Finetuning — Applied Deep Learning — Gene-Disease Association

EDUCATION

Rochester Institute of Technology Rochester, NY

Ph.D. in Computing and Information Sciences (CGPA: 3.97/4) *Aug 2022 - May 2027 (Expected)*

Relevant Courses: Deep Learning, Non-Convex Optimization for Modern Machine Learning, Statistical Machine Learning

Pulchowk Campus, Tribhuvan University Lalitpur, Nepal

Bachelor's Degree in Computer Engineering *Nov 2015 - Sep 2019*

Relevant Courses: Data Mining, Artificial Intelligence, Big Data Analytics, Probability and Statistics

PUBLICATIONS

Jeevan Thapa, Rui Li (2024). Bayesian Adaptation of Network Depth and Width for Continual Learning. In Forty-first International Conference on Machine Learning (**ICML 2024**).

Jeevan Thapa, Sinan Zhao, Koyoshi Shindo (2026). Evolving Mixture of Low-Rank Experts for Continual User Modeling. *Accepted at European Conference on Information Retrieval (ECIR 2026)*.

Jeevan Thapa, Rui Li. Cross-Task Representation Alignment for Exemplar-Free Class-Incremental Learning. *Under Review*.

PROFESSIONAL EXPERIENCE

Graduate Research Assistant *Aug 2022 – May 2027 (Expected)*

Rochester Institute of Technology Rochester, NY

- Designed a Bayesian continual learning framework that dynamically adapts network depth and width for evolving tasks; published in **ICML 2024**.
- Ongoing work on exemplar-free class-incremental learning.

Research Scientist Intern *May 2025 – Sep 2025*

Zillow Group Remote

- Developed a parameter-efficient fine-tuning framework using a mixture of rank-1 experts for continual user modeling on large-scale recommendation data; published in **ECIR 2026**.

Machine Learning Engineer *Sep 2019 – Jun 2022*

Fusemachines Kathmandu, Nepal

- Built end-to-end machine learning pipelines and deployed deep learning models for industry clients.
- Authored course materials on transformers, computer vision, and time series for the Fusemachines AI microdegree program, enabling training of 200+ junior engineers.

AI Intern

Jan 2019 – Jun 2019

Leapfrog Technology

Kathmandu, Nepal

- Built a license plate recognition system for Nepalese plates with vehicle detection, plate localization, and Devanagari character recognition modules.
- Created a localized dataset of annotated vehicles and synthetic Devanagari license characters, used in the undergraduate capstone project.

SELECTED INDUSTRY PROJECTS

Human Trafficking Recognition from Sex Worker Ads and Inter-Ad Matching *Fusemachines*

- Led the design and development of a multimodal ML pipeline to detect potential trafficking activity in online advertisements (video, image, text).
- Built image-text contrastive networks for ad matching, face-based identity linking, and transformer-based social handle extraction, improving cross-ad linkage accuracy by 35%.

Waste Type Detection *Fusemachines*

- Developed a lightweight single-shot object detector using MobileNet and focal loss to classify waste type and disposal intent.
- Deployed the model on Jetson Nano edge devices, achieving real-time inference with minimal resource.

Analysis of Radio Panelists Data *Fusemachines*

- Analyzed listener panel data to assess how song quality, commercial length, and time of day affect engagement metrics.
- Created evaluation metrics and statistical tests that informed programming and advertising decisions.

SKILLS

Programming	Python, C, C++
Deep Learning	PyTorch, TensorFlow, PEFT, Transformers, Transformer4Rec
Machine Learning	scikit-learn, NumPy, Pandas, Matplotlib, Seaborn, MLflow, NVTabular
Tools and Platforms	Git, Bash, Linux, AWS, Jira, LaTeX

AWARDS AND HONORS

- **Ph.D. Scholarship, Rochester Institute of Technology** — Full financial support to pursue a Ph.D. in Computing and Information Sciences, funded through NSF and NIH grants.
- **Full Scholarship, Tribhuvan University** — Granted by the Government of Nepal for securing 11th rank among 12,000 candidates (4% acceptance rate) in the national entrance examination.
- **Fusemachines Artificial Intelligence Fellowship** — Merit-based scholarship awarded to top candidates to enroll in a MicroMasters program in machine learning.

TALKS

- **Poster Presentation** — “Bayesian Adaptation of Network Depth and Width for Continual Learning” at **ICML 2024**, Vienna, Austria.
- **Guest Lecture** — “Continual Test-time Adaptation” in graduate course **CISC-865: Deep Learning**, Rochester Institute of Technology.
- **Guest Lecture** — “Deep Learning Toolkit” in graduate course **CISC-865: Deep Learning**, Rochester Institute of Technology.

ACADEMIC SERVICE

- Conference Reviewer for ICLR 2025, 2026, ECCV 2026, NeurIPS 2026.