Chandra Raskoti

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Publications

- **C. Raskoti**, I. Islam, X. Wang, and W. Li, “MIAT: Maneuver-Intention-Aware Transformer for Spatio-Temporal Trajectory Prediction.” IROS-2025
- C. Raskoti and S. Ghimire, "Continual Learning With Hard Attention Parameter Masking on Image Classification Tasks." IOEGC-15th

Work Experience

Research Assistant, Dr. Tan’s Biomedical Engineering Lab, Aug 2025–Present

- Developing 3D vision systems for minimally invasive surgery to enhance surgical precision and spatial awareness

Research Assistant, Fluidic City Lab & Center for Transportation Research, Aug 2024–Jul 2025

- Developing 3D vision systems for minimally invasive surgery to enhance surgical precision and spatial awareness
- Developed a Maneuver Intention aware and tunable framework for vehicle trajectory prediction.
- Engineered a 2D/3D co-simulation environment for large-scale traffic flow and high-fidelity vehicle dynamics.

Lead Machine Learning Engineer, Olive Group Jul 2023 – Jul 2024

- Led prompt-to-video content creation project using LLMs, information retrieval, and semantic similarity.
- Developed OCR and information extraction systems for books with object recognition and table extraction.
- Managed ML engineering team through project exploration, design, and implementation.

Machine Learning Engineer, Fusemachines Dec 2019 – Jul 2023

- Built multivariate time series forecasting pipelines for a video game publisher with feature engineering, model development and deployment.
- Created encoder-decoder semi-supervised models for protein-disease association discovery in biopharma.
- Developed personalized chatbot systems with database integration and intent recognition.

ML/Python Instructor & Mentor, Fusemachines Inc. Dec 2019 – Jul 2023

- Mentored ML apprentices and instructed Python/ML courses covering CV, NLP, and time series.

Projects

Metahuman Interview Agent

- AI interview system with Unreal Engine 4, integrating speech-to-text, TTS, and LLM plugins for STAR format questioning.

ECC Encrypted Ad-hoc Sensor Network

- Weather data collection network over Kathmandu Valley demonstrating ECC encryption efficiency over RSA for embedded systems.

Skills

Languages: Python, C, C++

Machine Learning: PyTorch, TensorFlow, Scikit-Learn, Pandas, NumPy, MLFlow

Tools & Cloud: Git, Docker, Kubernetes, AWS, Azure, SQL, MongoDB

Education

University of Tennessee, Masters in Computer Science Aug 2024 – Present

- Graduate Research Assistant focusing on Machine Learning, Robotics, Future Mobility

Institute of Engineering, Pulchowk Campus, Bachelors in Electronics and Communication – Kathmandu, Nepal Nov 2015 – Sept 2019

- Tribhuvan University, Government scholarship recipient (4% acceptance rate)