

# Chandra Raskoti

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## Summary

- Machine Learning Engineer with 5 years of industry experience (including Lead ML Engineer) and current M.S. Computer Science student with research focused on machine learning, medical robotics.
- End-to-end experience with LLMs, computer vision, time-series forecasting, and medical robotics: problem scoping, data pipelines, modeling, evaluation, and deployment on cloud infrastructure.

## Industry Experience

<b>Lead Machine Learning Engineer</b> , Olive Group	Jul 2023 – Jul 2024
• Led development of an LLM-based prompt-to-video content generation system, designing a retrieval-augmented pipeline using semantic similarity search over user prompts, scripts, and assets.	
• Built OCR and information-extraction pipelines for large book collections using object detection and table recognition, significantly reducing manual review effort.	
• Managed a ML engineering team through technical design, experimentation, code review, and deployment in collaboration with product and content stakeholders.	
<b>Machine Learning Engineer</b> , Fusemachines Inc.	Dec 2019 – Jul 2023
• Developed multivariate time-series forecasting pipelines for a major video game publisher, including feature engineering, model selection, and productionization on cloud infrastructure.	
• Developed encoder-decoder semi-supervised models for protein-disease association discovery using large-scale biomedical datasets in collaboration with biopharma researchers.	
• Built personalized conversational agents integrating graph databases, intent classification, and entity resolution for enterprise clients.	
<b>Research Assistant</b> , Tan Engineering Lab, University of Tennessee	Aug 2025 – Present
• Researching autonomous robotic grasping and manipulation for delicate medical applications, focusing on perception-driven policies and robust control.	
<b>Research Assistant</b> , Fluidic City Lab, University of Tennessee	Aug 2024 – Jul 2025
• Applied deep learning and statistical models to predict complex traffic interactions in mixed-traffic environments, contributing to transformer-based trajectory prediction methods.	
<b>ML/Python Instructor &amp; Mentor</b> , Fusemachines Inc.	Dec 2019 – Jul 2023
• Mentored 8 ML apprentices and instructed Python/ML courses covering computer vision, NLP, and time-series analysis, emphasizing practical, production-oriented workflows.	

## Selected Publications

- C. Raskoti, I. Islam, X. Wang, and W. Li, “MIAT: Maneuver-Intention-Aware Transformer for Spatio-Temporal Trajectory Prediction.” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2025. [Link](#)
- C. Raskoti and W. Li, “Elevation-aware 2D/3D co-simulation framework for large-scale traffic flow and high-fidelity vehicle dynamics.” *Preprint draft*.
- C. Raskoti and S. Ghimire, “Continual Learning With Hard Attention Parameter Masking on Image Classification Tasks.” *IOEGC*, 2024.

## Projects

### Metahuman Interview Agent

- Built an AI interview system combining Speech-to-Text, Text-to-Speech, and an LLM to conduct STAR-format behavioral interviews and generate structured feedback for candidates.

### Elevation-aware 2D/3D Traffic Co-simulation Framework

- 2D/3D traffic co-simulation framework that builds elevation-aware 3D road networks from real-world map and GIS data to model high-fidelity traffic dynamics for perception, simulation, and evaluation of intelligent transportation ML models.

## Skills

**Programming:** Python, C, C++

**ML & Deep Learning:** PyTorch, TensorFlow, Scikit-learn, Transformers, Time-series Forecasting, Computer Vision, NLP

**Data & MLOps:** NumPy, Pandas, SQL, MongoDB, MLflow, Git, Docker, Kubernetes, CI/CD

**Cloud:** AWS, Azure

## Education

**M.S. in Computer Science**, University of Tennessee

Aug 2024 – Mar 2026 (Expected)

**B.E. Electronics and Communication Engineering**, Institute of Engineering, Pulchowk Campus

Nov 2015 – Sept 2019

- Government scholarship recipient (acceptance rate < 4%).