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 reserach 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

Lead Machine Learning Engineer, 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.

Machine Learning Engineer, 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.

Research Assistant, 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.

Research Assistant, 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.

ML/Python Instructor & Mentor, 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 – May 2026 (Expected)
B.E. Electronics and Communication Engineering, Institute of Engineering, Pulchowk Campus — Nov 2015 – Sept 2019
- Government scholarship recipient (acceptance rate $< 4\%$).