Sahil P. Bhatt

Applied Scientist (Machine Learning & Operations Research)

- 3 years of experience in developing novel large-scale optimization models and RL algorithms for logistics and last-mile delivery.
- Skilled at building real-time decision-making systems that reduce operational costs and improve service efficiency.
- Experienced with large-scale ML systems for delivery fleet size optimization using PyTorch and cloud computing platforms.
- Presented technical findings at leading AI/ML conferences.

WORK EXPERIENCE

AI/ML Research Assistant September 2024 – August 2025
Toronto Metropolitan University, Toronto, ON

- Achieved 98% service level and 93% driver utilization by building a two-stage optimization framework.
- Reduced driver idle time by 89% through developing reinforcement learning algorithms for dynamic matching.
- Implemented production-quality Python solutions using PyTorch, TensorFlow, and optimization libraries.
- Deployed solutions on distributed computing clusters with GPU acceleration, cutting training and simulation time by 70% and enabling large-scale experimentation.

AI/ML Research Intern Jan 2025 – Jul 2025
Mitacs, Toronto, ON

- Explored how AI/ML can transform Canadian legaltech.
- Analyzed market trends using ML (classification, time-series forecasting) for IP management solutions.
- Delivered 8 technical reports to business stakeholders recommending ML-driven workflow improvements.

PUBLICATIONS

Fleet Size Planning in Crowdsourced Delivery, *Omega: The International Journal of Management Science* (Under Review)
- Applied optimization and algorithmic design to solve strategic planning problems in logistics and supply chain optimization.

AI/ML PROJECTS

CONTACT

- Mississauga, ON (Open to Remote)
- +1-647-884-4257
- sahil.bhatt@torontomu.ca
- Linkedin
- Github
- Google Scholar

SKILLS

Programming:
Python, C++, Java, SQL, R

AI/ML tools:
PyTorch, TensorFlow, Scikit-learn

AI/ML techniques:
Reinforcement Learning, CNNs, RNNs, Transformers

Optimization:
Bayesian Optimization, Markov Decision Processes, Dynamic Programming, Network Optimization, Gurobi, CPLEX, Pyomo

Software tools:
Linux, GPU Computing, Jupyter, NumPy, Pandas, SLURM

EDUCATION

Toronto Metropolitan University
Master of Applied Science, Industrial Engineering
Specialization: ML & Operations Research
Thesis: Fleet Size Management in Crowdsourced Delivery
GPA: 4.28/4.33
Toronto, ON – Oct 2024

Toronto Metropolitan University
Bachelor of Engineering
Major in Mechanical Engineering
Toronto, ON – Jun 2022

AWARDS

- Gilbert Laporte Student Paper Award Finalist, CORS 2025
- Queen Elizabeth II Graduate Scholarship in Science and Technology, 2024 ($15,000)
- Graduate Fellowship, Toronto Metropolitan University, 2023 ($12,000)
- Graduate Development Award, Toronto Metropolitan University, 2023 ($6000)