Aparimit Kasliwal

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Education

Aug, 2023 - May, 2024 MS (Systems Engineering) **UC Berkeley, CA** (GPA: 3.78/4.0)
Hosted by the Department of Civil & Environmental Engineering, emphasising on large-scale systems, transportation & individual mobility (using CDR, LBS)

Graduate Certificate in Applied Data Science **UC Berkeley** (GPA: 4.0/4.0)

Jul, 2019 - May, 2023 BTech (Civil Enigneering) **IIT Delhi, India** (GPA: 8.14/10.0)

Projects

- **Multi-Scale Traffic Congestion Spreading through Contagion Models** Project Description
  - Inferring congestion patterns at multiple spatial scales with traffic simulations based on CDR
  - Modeling traffic congestion spread with SIS (Susceptible / Infected) epidemic spreading model
- **Pricing & Matching Policy Development for Ride-sharing** Course Description
  - Modeled spatial demand patterns using Uber H3 Hexagons for pricing riders accordingly
  - Developed dynamic pricing & matching algorithms which are based on riders in the state
- **Resilience of Singapore MRT to Floods & Targeted Attacks** Research Programme
  - Modeled MRT Network in Python, developed a Flood Resistance Index to quantify resilience

Publications

Rafaela O.P. Amr S.A. Aparimit K., Mazdak N. (Mar. 2024). "Labeling Construction, Renovation, and Demolition Waste through Segment Anything Model (SAM)". In: *Construction Research Congress 2024*, pp. 279–288. URL: https://doi.org/10.1061/9780784485262.029.

Skills

Programming:	Python, Pandas, GeoPandas, Jupyter, Git, Bash Scripting, MATLAB, LaTeX
Technical Skills:	Map Matching, Trajectory Generation, Stay Detection, Uber H3 Hexagons
Transportation Skills:	Traffic Simulations (SUMO) Routing, Congestion Analysis, Traffic Control

Research & Teaching

Graduate Student Researcher	Networked Infrastructure Under Compound Extremes: Analysing traffic congestion spread at multiple scales	Spring 2024
Graduate Student Instructor	CE 100: Elementary Fluid Mechanics	Fall 2023
	CE C88: Data Science for Smart Cities	Spring 2024

Graduate Level Coursework

EECS 227AT: **Optimization** Models

INFO 251: Applied **Machine Learning**

CE 263H: Human **Mobility & Network** Science

CE C258: Supply Chain & **Logistics** Management

CE 262: Analysis of **Transportation Data**

CE 291D: **Data-Driven Control** Methods