# Aparimit Kasliwal



## EDUCATION

May, 2024 - Present	PhD (Systems Engineering) <b>UC Berkeley, CA</b> Research Focus: Network Science, Transportation	(Major GPA: 4.0/4.0) Modeling, System Resilience
Aug, 2023 - May, 2024	MS (Systems Engineering) <b>UC Berkeley, CA</b> Graduate Certificate in Applied Data Science	(GPA: 3.87/4.0) (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, OSMNx, NetworkX, Git, Bash, MATLAB
Geo-tagged Data, Map Matching, Trajectory Generation, Uber H3, Networks
Transportation Skills:
Traffic Simulations (SUMO), Routing, Congestion Analysis, Traffic Control

# RESEARCH & TEACHING

Graduate Student Researcher
Graduate Student Instructor

CE 100: Elementary Fluid Mechanics
CE CS8: Data Science for Smart Cities

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2024 - Fall 2023
Spring 2024

# Graduate Level Coursework

EECS 227AT: Optimization Models CE C258: Supply Chain & Logistics Management

INFO 251: Applied Machine Learning CE 262: Analysis of Transportation Data

 Last updated: May 21, 2024