

# Aparimit Kasliwal

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## EDUCATION

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May, 2024 - Present	PhD (Systems Engineering) <b>UC Berkeley, CA</b> <i>Designated Focus:</i> Computational Data Science & Engineering. <i>Research Focus:</i> Network Science, Urban Mobility, Mechanism Design	(Major GPA: 4.0/4.0)
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) <b>IIT Delhi, India</b>	(GPA: 8.14/10.0)

## SELECTED PUBLICATIONS

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- Aparimit Kasliwal** et al. (2025). “Hierarchical Analysis of Spreading Dynamics in Complex Systems”. In: *Computer-Aided Civil and Infrastructure Engineering* 40, pp. 6223–6241. URL: <https://doi.org/10.1111/mice.70165>.
- Ozturk, A. T. et al. (July 2025). “A Mesoscopic Model of Vehicular Emissions Informed by Direct Measurements and Mobility Science”. In: *Sustainable Cities & Society* 129, p. 106421. URL: <https://doi.org/10.1016/j.scs.2025.106421>.
- Cao, S. et al. (2026). “DeepTimeGeo: Trajectory Reconstruction from Sparse Data with Transformer”. In: *IEEE Transactions on Intelligent Transportation Systems*. URL: <https://doi.org/10.1109/TITS.2026.3657275>.

## PROJECTS

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- **Pricing & Matching Policy Development for Ride-sharing** [Course Description](#)
  - Spatial modeling of demand patterns through Uber H3 Indexing for pricing riders accordingly
  - Development of state-based, dynamic, and optimal pricing & matching policies for ride-sharing
- **Parallelizing TimeGeo for Scalable Urban Mobility Simulations** [Project Description](#)
  - Parallelized Stay Detection and Parameter Generation for simulations from sparse LBS data
  - Improved scalability through distributed processing and accuracy-preserving mechanisms

## SKILLS

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**Programming:** Python, Git, Bash, Scientific & Statistical Computing, MATLAB, NetworkX  
**Machine Learning:** Code Parallelization, JAX, Pytorch, PyG, Graph Representation Learning  
**Technical Skills:** Geo-tagged Data, Map Matching, Trajectory Generation, Uber H3, Networks

## GRADUATE LEVEL COURSEWORK

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CS 267: Applications of <b>Parallel Computers</b>	CE 290: <b>Games &amp;</b> Intelligent Agents in Transportation Systems
EECS 227AT: <b>Optimization</b> Models	STAT 243: <b>Statistical Computing</b>
CS 294-179: <b>Networks</b> & Spread of (Mis)Information	CE 263H: Human <b>Mobility &amp; Network</b> Science