

Vinayak Gupta

CONTACT INFORMATION

Department of Computer Science
Indian Institute of Technology Delhi
New Delhi, 110016, India

Voice: (+91) 8368416976
E-mail: guptavinayak51@gmail.com
WWW: <https://gvinayak.github.io>

RESEARCH INTERESTS

Deep Learning for Time-Series, Recommendation Systems, Temporal Point Processes, Spatial Data Mining, Transfer Learning, and Graph Neural Networks.

EDUCATION

Indian Institute of Technology Delhi, India

Ph.D. Candidate, Computer Science.

July 2017 – July 2022 (expected)

- Dissertation Topic: “Modeling Time-Series and Spatial data for Recommendation and Other Applications”
- Advisor: Srikanta Bedathur

Indian Institute of Information Technology Jabalpur, M.P., India

B.Tech., Computer Science and Engineering.

July 2013 – May 2017

PROFESSIONAL EXPERIENCE

Indian Institute of Technology Delhi

July 2017 – June 2022

Research Assistant

Includes the current Ph.D. research, graduate-level teaching assistantship, and coursework.

Amazon Inc.

Jan. 2022 – June 2022

Applied Science Intern

Worked with the ML team on time-sensitive reward distribution for users in Amazon Pay. The project involved modeling the periodicity and missing events in the transaction records of users.

Siemens Healthcare AG

May 2016 – Jan. 2017

Research Intern

Designed ML models to improve the image quality during radiography and fluoroscopy.

PUBLICATIONS

V. Gupta and S. Bedathur. ProActive: Self-Attentive Temporal Point Process Flows for Activity Sequences. 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (**KDD**). 2022.

V. Gupta, S. Bedathur, and A. De. Learning Temporal Point Processes for Efficient Retrieval of Continuous Time Event Sequences. 36th AAAI Conference on Artificial Intelligence (**AAAI**). 2022.

V. Gupta, S. Bedathur, S. Bhattacharya, and A. De. Modeling Continuous Time Sequences with Intermittent Observations using Marked Temporal Point Processes. ACM Transactions on Intelligent Systems and Technology (**TIST**). 2022.

V. Gupta and S. Bedathur. Doing More with Less: Overcoming Data Scarcity for POI Recommendation via Cross-Region Transfer. ACM Transactions on Intelligent Systems and Technology (**TIST**). 2022.

V. Gupta, S. Bedathur, S. Bhattacharya, and A. De. Learning Temporal Point Processes with Intermittent Observations. 24th International Conference on Artificial Intelligence and Statistics (**AISTATS**). 2021.

V. Gupta and S. Bedathur. Region Invariant Normalizing Flows for Mobility Transfer. 30th ACM Intl. Conference on Information and Knowledge Management (**CIKM**). 2021.

A. Likhyani*, **V. Gupta***, P. K. Srijith, P. Deepak, and S. Bedathur. Modeling Implicit Communities from Geo-tagged Event Traces using Spatio-Temporal Point Processes. 21st Intl. Conference on Web Information Systems Engineering (**WISE**). 2020.

	S. Maurya*, V. Gupta* , and V.K. Jain. LBRR: Load Balanced Ring Routing Protocol for Heterogeneous Sensor Networks with Sink Mobility. IEEE Wireless Communications and Networking Conference (WCNC). 2017.	
PAPERS IN PREPARATION	V. Gupta and S. Bedathur. Modeling Spatial Trajectories using Coarse-Grained Smartphone Logs. S. Arora, V. Gupta , G. Gaur, and S. Bedathur. BERT Meets Relational DB: Contextual Representations of Relational Databases.	
POSTERS	V. Gupta. A Neural Approach for Modeling Continuous Time Sequences with Intermittent Observations. ACM India Academic Research and Careers for Students Symposium. 2022. [Oral] V. Gupta. Learning Neural Models for Continuous-Time Sequences. First International Conference on AI-ML Systems: Doctoral Symposium. 2021.	
HONORS AND AWARDS	Among Top-3 Finalists for the NASSCOM AI Game-Changer Award. 2022 Microsoft Research Travel Grant to attend ACM SIGKDD. 2022 Outstanding Doctoral Paper Award: The First Intl. Conference on AI-ML Systems. 2021 ACM SIGIR Student Grant for CIKM. 2021 Review Score of 10/10 with a comment “ground-breaking” for AISTATS paper. 2021. All India 9th Rank in ABU Asia-Pacific Robocon. 2015 Project selected for ‘Make In India’, the government’s flagship manufacturing initiative. 2015 Top 2% in Joint Entrance Exam (JEE) Mains among 1.4 million candidates. 2013	
COURSES	<ul style="list-style-type: none"> • Teaching Assistant: Information Retrieval, Machine Learning, Data Mining, Data Structures, Computer Networks, and Intro. to Programming. • Credit: Deep-, Machine- & Reinforcement-Learning, Computer Architecture, Network Security, Software Engineering, and Game Theory. 	
REVIEWER	SIGIR 2022, AAAI 2022, WSDM 2022, WWW 2022, and ICML 2022: Subset Selection Workshop.	
SKILLS	<ul style="list-style-type: none"> • Proficient: Python – Tensorflow, Keras, Pytorch, MATLAB, PHP, and AWS. • Intermediate: C, C++, MySQL, and PySpark. 	
SELECTED PRESENTATIONS	Technical University of Munich. June 2022 NASSCOM AI Game-Changer Award Ceremony. June 2022 ACM Academic Research and Careers for Students (ARCS) Symposium. Feb. 2022 Amazon Research Days. Dec. 2021 Doctoral Symposium: First International Conference on AI-ML Systems. Nov. 2021 MIT-IBM AI Research Week. Sept. 2021 Research Symposium, IIT Delhi. Dec. 2019 Siemens Innovation Research Lab Exhibition (IRLE). July 2016 Make in India: Quality Improvement Program. Dec. 2015	
OTHER ACTIVITIES	<ul style="list-style-type: none"> • Administrator of four high-performance GPU servers at CSE, IIT Delhi. • Assistant for the Ph.D./M.S. selection committee for Fall 2020 and Spring 2021. 	
REFERENCES	Srikanta Bedathur Department of Computer Science Indian Institute of Technology Delhi srikanta@cse.iitd.ac.in	Abir De Department of Computer Science Indian Institute of Technology Bombay abir@cse.iitb.ac.in