

# Vinayak Gupta

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CONTACT INFORMATION	IBM Research, Gurugram, Haryana WWW: <a href="https://gvinayak.github.io">https://gvinayak.github.io</a>	Voice: (+91) 8368416976 E-mail: <a href="mailto:guptavinayak51@gmail.com">guptavinayak51@gmail.com</a>
INTERESTS	Deep Learning for Time-Series, Recommendation Systems, Spatial Data Mining, and Graphs.	
EDUCATION	<b>Indian Institute of Technology (IIT) Delhi</b> Ph.D. in Data Mining. July 2017 – July 2022 • Dissertation: “Modeling Time-Series for Recommendations and Other Applications”.	
	<b>Indian Institute of Information Technology (IIIT) Jabalpur</b> B.Tech. in Computer Science and Engineering. July 2013 – May 2017	
INDUSTRY EXPERIENCE	<b>IBM Research</b> Aug. 2022 – Present <i>Research Scientist</i> Working in the Data & AI research team to include temporal context in natural language models.	
	<b>Amazon Inc.</b> Jan. 2022 – June 2022 <i>Applied Science Intern</i> 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 users’ transaction records.	
	<b>Siemens Healthcare AG</b> May 2016 – Jan. 2017 <i>Research Intern</i> Designed ML models to improve image quality during radiography and fluoroscopy.	
HONORS AND AWARDS	Expert Talk at IndiaAI: Organized by NASSCOM and Ministry of IT – Govt. of India.	2022
	NASSCOM AI Game-Changers of India: Runner-Up.	2022
	Microsoft and Google (Declined) 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 “ground-breaking work” comment in AISTATS.	2021
	All India 9th Rank in ABU Asia-Pacific Robocon.	2015
	Project selected for ‘Make In India’ – India’s Flagship Manufacturing Initiative.	2015
SELECTED PUBLICATIONS	<b>V. Gupta</b> and S. Bedathur. ProActive: Self-Attentive Temporal Point Process Flows for Activity Sequences. ACM SIGKDD Conference on Knowledge Discovery and Data Mining ( <b>KDD</b> ). 2022.	
	<b>V. Gupta</b> , S. Bedathur, and A. De. Learning Temporal Point Processes for Efficient Retrieval of Continuous Time Event Sequences. AAAI Conference on Artificial Intelligence ( <b>AAAI</b> ). 2022.	
	<b>V. Gupta</b> , 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 ( <b>ACM TIST</b> ). 2022.	
	<b>V. Gupta</b> and S. Bedathur. Doing More with Less: Overcoming Data Scarcity for POI Recommendation via Cross-Region Transfer. ACM Transactions on Intelligent Systems and Technology ( <b>ACM TIST</b> ). 2022.	
	<b>V. Gupta</b> and S. Bedathur. Modeling Spatial Trajectories using Coarse-Grained Smartphone Logs. IEEE Transactions on Big Data ( <b>IEEE TBD</b> ). 2022.	
	<b>V. Gupta</b> , S. Bedathur, S. Bhattacharya, and A. De. Learning Temporal Point Processes with Intermittent Observations. Conference on Artificial Intelligence and Statistics ( <b>AISTATS</b> ). 2021.	

	<p><b>V. Gupta</b> and S. Bedathur. Region Invariant Normalizing Flows for Mobility Transfer. ACM Conference on Information and Knowledge Management (<b>CIKM</b>). 2021.</p> <p>A. Likhyani*, <b>V. Gupta*</b>, P. K. Srijith, P. Deepak, and S. Bedathur. Modeling Implicit Communities from Geo-tagged Event Traces using Spatio-Temporal Point Processes. Conference on Web Information Systems Engineering (<b>WISE</b>). 2020.</p> <p>S. Maurya*, <b>V. Gupta*</b>, and V.K. Jain. LBRR: Load Balanced Ring Routing Protocol for Heterogeneous Sensor Networks with Sink Mobility. IEEE Wireless Communications and Networking Conference (<b>WCNC</b>). 2017.</p>		
TUTORIALS AND WORKSHOPS	<p><b>V. Gupta</b> et al. Advances in NLP Research for Automated Business Intelligence. Tutorial at International Conference on Natural Language Processing (<b>ICON</b>). 2022.</p> <p><b>V. Gupta</b> and S. Bedathur. Modeling Human Actions in Time-Stamped Activity Sequences. Applied Machine Learning Methods for Time Series Workshop (AMLTs at <b>CIKM</b>). 2022.</p>		
SELECTED TALKS	<p><b>“Modeling Time Series for Recommendation and Other Applications”</b></p> <ul style="list-style-type: none"> <li>Georgia Institute of Technology, Atlanta. Oct. 2022</li> <li>University of Michigan, Ann Arbor. Oct. 2022</li> <li>University of Washington, Seattle. Sep. 2022</li> <li>University of Notre Dame, Indiana. Sep. 2022</li> <li>IBM India Research Lab, Bangalore. June 2022</li> <li>Technical University of Munich, Germany. June 2022</li> </ul> <p><b>“Large Scale Retrieval of Continuous-Temporal Sequences”</b></p> <ul style="list-style-type: none"> <li>NASSCOM AI Game-Changers of India Ceremony. June 2022</li> <li>Amazon Research Days. Dec. 2021</li> </ul> <p><b>“Learning Neural Models for Temporal Sequences with Missing Events”</b></p> <ul style="list-style-type: none"> <li>ACM India Research and Careers for Students Symposium [Oral]. Feb. 2022</li> <li>Doctoral Symposium: AI-ML Systems [Outstanding Paper Award]. Nov. 2021</li> </ul> <p><b>“Thinking Beyond Complete Data with Neural Temporal Point Processes”</b></p> <ul style="list-style-type: none"> <li>Research Symposium: IIT Delhi. Dec. 2019</li> <li>AI Week at MIT-IBM Research Lab. Sep. 2021</li> </ul> <p><b>“Maxima: Electronic Mask for Patients with Exercise-Induced Asthma”</b></p> <ul style="list-style-type: none"> <li>Siemens Innovation Research Lab Exhibition at Erlangen, Germany. July 2016</li> <li>Make-In-India Quality Improvement Programme (QIP) Dec. 2015</li> </ul>		
COURSES	<p><b>Teaching Assistant:</b> Information Retrieval, Machine Learning, Data Mining, Data Structures, Computer Networks, and Intro. to Programming.</p> <p><b>Credit:</b> Deep-, Machine- &amp; Reinforcement-Learning, Computer Architecture, Network Security, Software Engineering, and Game Theory.</p>		
REVIEWER	AAAI 2022-23, SIGIR 2022, WSDM 2022, WWW 2022, ACM TOIS, and ICML 2022 Workshop.		
SKILLS	<p><b>Proficient:</b> Python – Tensorflow, Keras, Pytorch, MATLAB, PHP, IBM Cloud, and AWS.</p> <p><b>Intermediate:</b> C, C++, MySQL, and PySpark.</p>		
OTHER ACTIVITIES	<ul style="list-style-type: none"> <li>Administrator of four high-performance GPU servers at IIT Delhi.</li> <li>Member of the Ph.D./M.S. Graduate Admissions Committee for Fall 2020 and Spring 2021.</li> </ul>		
REFERENCES	<p><b>Srikanta Bedathur</b>  Dept. of Computer Science  IIT Delhi  srikanta@cse.iitd.ac.in</p>	<p><b>Abir De</b>  Dept. of Computer Science  IIT Bombay  abir@cse.iitb.ac.in</p>	<p><b>Sourangshu Bhattacharya</b>  Dept. of Computer Science  IIT Kharagpur  sourangshu@cse.iitkgp.ac.in</p>