Dr. Srikanth Baride

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Google Scholar — LinkedIn — GitHub — Website — ORCID

Profile Summary

Postdoctoral Researcher (Ph.D., IIIT-Delhi 2024) specializing in Reinforcement Learning, AI for Healthcare, and Spatial Data Mining. Leading NIH-funded biomedical informatics projects.

Research Summary

My doctoral research focused on spatial data mining with an emphasis on colocation pattern mining. I developed novel frameworks such as Range Colocation Mining, High-Utility Subgraph Pattern Mining, and Dynamic Colocation Pattern Mining. These approaches addressed scalability, utility optimization, and temporal evolution in spatial datasets, contributing to real-world geospatial analytics.

Education

- **Ph.D., Computer Science & Engineering**, IIIT-Delhi, India (2024), CGPA: 8.11
- **M.Tech., Computer Science & Engineering**, NIT Hamirpur, India (2012), CGPA: 7.76
- **B.Tech., Information Technology**, J.B. Institute of Engineering Technology, JNTU Hyderabad, India (2010), Score: 73.61%

Publications

[1] Draft book manuscript (in preparation): *Reinforcement Learning Fundamentals: From Theory to Practice*, with accompanying GitHub resources https://github.com/srikanthbaride/Reinforcement-Learning-Explained-Code.

[2] Baride, S., Saxena, A.S., Goyal, V. "Efficiently Mining Colocation Patterns for Range Query." *Big Data Research*, 31:100369 (Feb 2023).

[3] Khare, A., Goyal, V., Baride, S., Prasad, S.K., McDermott, M., Shah, D. "Distributed Algorithm for High-Utility Subgraph Pattern Mining Over Big Data Platforms." *IEEE HiPC*, pp. 263–272 (Dec 2017).

[4] Barnwal, R.P., Baride, S., Majumder, S., Ghosh, S. K. "A Density-Based Algorithm for Detecting Anomalous Trajectories." In *MicroCom* (2016).

[5] Baride, S., Dutta, K. "A Cloud-Based Software Testing Paradigm for Mobile Applications." *ACM SIGSOFT Softw. Eng. Notes*, 36(3):1–4 (2011).

Professional Experience

- **Postdoctoral Researcher**, University of South Dakota (2025–Present)

- **Visiting Assistant Professor**, University of South Dakota (2024–2025)
- **Digital Innovation Engineer – Data Science**, Buckman (2023–2024)
- **Senior Project Fellow**, CSIR-CMERI (2023–2024)
- **System Engineer**, Infosys (2013–2014)

Teaching Experience

- Undergraduate: Introduction to Programming, Distributed Systems, Operating systems
- Graduate: Artificial Intelligence, Reinforcement Learning, Data Mining, Big Data Analytics

Awards and Fellowships

- Visvesvaraya Ph.D. Fellowship (2016–2020), Ministry of Electronics & Information Technology, Govt. of India.
- MHRD Scholarship (2010–2012) for M.Tech, Govt. of India.
- Best Project - 10th National Children's Science Congress, Govt. of India (2003).

Technical Skills

- **Languages:** C, C++, Java, Python, R, SQL, PHP, JavaScript
- **Frameworks:** Scikit-learn, NumPy, Pandas, Matplotlib, J2EE, JSP
- **Databases:** Oracle, MySQL, PhpMyAdmin
- **Tools:** Visual Studio, Eclipse, SystemC, Unix/Linux, MS Office
- **Technologies:** HTML, CSS, Web Services, REST APIs, Cloud Infrastructure

Invited Talks

- "Beyond Boundaries: Advancing Colocation Pattern Mining in Spatial Data." Brown Bag Lecture, USD (April 29, 2025)

Professional Service

- Program Committee Member, 4th International Conference on Artificial Intelligence and Smart Data Science (AISDS 2025).
- Reviewed a research manuscript for *GeoInformatica* (2025), demonstrating subject-matter expertise in geospatial computing and contribution to academic peer review.
- Mentored multiple reinforcement learning projects as part of the Applied Reinforcement Learning course, guiding students through practical implementation and research thinking.