

JYOTI

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Research Interest

- Scalable Algorithms for subgroup discovery
- Big Data Analytics

Education

- Pursuing Ph.D. (Computer Science) with 9.58 CGPA from **Indian Institute of Technology**, Mandi, Himachal Pradesh. (Thesis submitted in July 2024) (Guide: Dr. Sriram Kailasam, Co-Guide: Dr. Padmanabhan Rajan)
- M. Tech. (Comp. Engg.) with 8.66 CGPA from **National Institute of Technology**, Kurukshetra, Haryana, 2017. (Guide: Dr. Jitender Kumar Chhabra)
- B.Tech. (C.S.E.) with 8.45 CGPA from **Deenbandhu Chhotu Ram University of Science and Technology** (D.C.R.U.S.T.), Murthal, Haryana, 2015.

Achievements

- UGC Net and Gate Qualified
- Best Teaching Assistant Award at IIT Mandi three times (2019, 2021, 2022)
- [Our paper](#) has been selected as one of the top three research papers for the [IEEE TCSC International Scalable Computing Challenge \(SCALE 2023\)](#).

Research Project

- Distributed Algorithms for Formal Concept Analysis, funded by MHRD under [SPARC](#) 2019-2023.
PI: [Dr. Sriram Kailasam](#) (IIT Mandi), [Dr. Sergei Obiedkov](#) (Higher School of Economics Moscow, Russia) Co-investigators: [Dr. Astrid Kiehn](#) (IIT Mandi), [Dr. Aleksey Buzmakov](#) (Higher School of Economics Perm, Russia).
Research outcome: First author of three conference papers and one SCI journal publication.

Teaching

- 1 year Teaching experience as an Assistant Professor at Chandigarh University, India.
 - ❖ Theory of computation (Jul-Dec 2017)
 - ❖ BigData Analytics (Jan-Jul 2018)
- Teaching Assistant at IIT Mandi (2018-present)
 - ❖ Large Application Practicum
 - ❖ Introduction to Communicating Distributed Processes (OS)
 - ❖ Information and Database Systems

Technical Skills

- BigData frameworks: Kafka, Zookeeper, Hadoop (MapReduce), Spark
- Programming in Java, C, C++, Python
- Web development: HTML, CSS, JSP, javascript
- IOT: working with Raspberry Pi, NodeMCU, and Arduino UNO (as part of course work at IIT Mandi)

Publications

1. Jyoti, Sriram Kailasam, Aleksey Buzmakov, “A scalable, distributed framework for significant subgroup discovery”, Knowledge-Based Systems, Elsevier, Vol. 284, 2024, 111335, ISSN 0950-7051. <https://doi.org/10.1016/j.knosys.2023.111335> (**Q1 Journal, Impact Factor: 8.8, funded by SPARC**)
2. Jyoti, Sriram Kailasam, and Aleksey Buzmakov, “ParaDiS: a parallel and distributed framework for significant pattern mining”, accepted under scale challenge in “The 23rd IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing (CCGrid)”, for scale challenge, Bangalore, May 1-4, 2023. <https://doi.org/10.1109/CCGridW59191.2023.00050> (**Core A, funded by SPARC**)
3. Jyoti, Aleksey Buzmakov and Sriram Kailasam, “[Towards Stable Significant Subgroup Discovery](#)”, in “15th International Conference on Concept Lattices and Their Applications (CLA)”, Estonia, pp. 287-292, June 29-July 1, 2020, ISBN 978-9949-83-557-7 (**Funded by SPARC**)
4. Muneeswaran P, Jyoti and Sriram Kailasam, “[A Hybrid Partitioning Strategy for Distributed FCA](#)”, in “15th International Conference on Concept Lattices and Their Applications (CLA)”, Estonia, pp. 71-82, June 29-July 1, 2020, ISBN 978-9949-83-557-7 (**Funded by SPARC**)
5. Jyoti and Jitender Kumar Chhabra, “Filtering of False Positives from IR-based Traceability Links among Software Artifacts” in “2nd International Conferences for Convergence of Technology (I2CT)”, India, IEEE 2017. <https://doi.org/10.1109/I2CT.2017.8226300>
6. Jyoti and Jitender Kumar Chhabra, “[Requirements Traceability through Information Retrieval using Dynamic Integration of Structural and Co-change Coupling](#)” in “1st International Conference On Advanced Informatics For Computing Research”, India, 2017, Springer (CCIS Series ISSN Number - 1865-0929).

Professional References

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2. [Dr. Padmanbhan Rajan](#), Associate Professor, IIT Mandi
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