

# PRAJJWAL NIJHARA

Indian Institute of Technology Jodhpur, NH 62, Karwar, Jodhpur, Rajasthan 342030, India.

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## EDUCATION

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- Indian Institute of Technology** • Jodhpur • India July 2023 – Present  
*Mtech+PhD* • *Computer Science & Engg.* • CGPA: 9.22/10 • **TCS RSP Fellow** • **Department Rank 1**
- Aligarh Muslim University** • Aligarh • India July 2018 – May 2022  
*Bachelor of Technology* • *Electrical Engg.* • CGPA: 9.1/10
- St. Mary's Academy** • Saharanpur, India July 2015 – May 2017  
*Senior Secondary* • CBSE • Marks: 88.8%

## ACHIEVEMENTS

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- Gold medal in physics and computer science on CBSE boards
- 1st runner up in SIH-19 software edition
- 2nd runner up in inter-hall hockey tournament, Aligarh Muslim University
- Secured 1852 rank in GATE CSE 2023
- Best Poster Award at IEEE HiPC 2024
- Best Lightning Talk Award at IEEE HiPC 2024
- TCS Research Scholar Program (RSP) Fellow 2025

## PUBLICATIONS

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- **Prajjwal Nijhara**, Jainan Tandel, Rohit Prajapati, and Dip Sankar Banerjee. *A Precise and Closed-Form Solution for Edge-Ranking*. at the 27th International Conference on Distributed Computing and Networking (ICDCN), Nara, Japan. 2026
- **Prajjwal Nijhara\***, Rohit Prajapati\* and Dip Sankar Banerjee. *SAGA: A Framework for State Aware Streaming Graph Analytics*. at the 32nd International Conference on High Performance Computing, Data, and Analytics (HiPC), Hyderabad, India. 2025 (*Under Review*)
- **Prajjwal Nijhara**, Lokesh Venkatachalam, Agam Harpreet Singh, Athreya Chandramouli, Sayantan Jana, Kishore Kothapalli, and Dip Sankar Banerjee. *Efficient Parallel Algorithms for Dynamic Percolation Centrality*. at the 54th International Conference on Parallel Processing (ICPP), San Diego, USA. 2025
- **Prajjwal Nijhara**, Aditya Trivedi, Dip Sankar Banerjee, *Fast Maximal Independent Sets on Dynamic Graphs*, In 33rd Euromicro/IEEE International Conference on Parallel, Distributed, and Network-Based Processing (PDP 2025), 2025
- **Prajjwal Nijhara**, Dishit Sharma, Dip Sankar Banerjee, *Fast Katz Centrality on Dynamic Graphs*, In 33rd Euromicro/IEEE International Conference on Parallel, Distributed, and Network-Based Processing (PDP 2025), 2025
- Aditya Trivedi, **Prajjwal Nijhara**, Dip Sankar Banerjee, *Fast MIS on Incremental Graphs*, In 31st IEEE International Conference on High Performance Computing, Data, and Analytics (HiPC 2024), 2024 (Students Research Symposium) (**Best Lightning Talk Award**)
- Dishit Sharma, **Prajjwal Nijhara**, Dip Sankar Banerjee, *Parallel Katz Centrality On Evolving Graphs*, In 31st IEEE International Conference on High Performance Computing, Data, and Analytics (HiPC 2024), 2024 (**Best Poster Award**)
- Aditya Mundhara, **Prajjwal Nijhara**, Dip Sankar Banerjee, *Efficient Parallel Algorithms For Exact SimRank Computations*, In 31st IEEE International Conference on High Performance Computing, Data, and Analytics (HiPC 2024), 2024 (Students Research Symposium)
- Dhyan Yajnik, Huzefa Ansari, **Prajjwal Nijhara**, Dip Sankar Banerjee, *Efficient Parallel Algorithms For Exact SimRank Computations*, In 31st IEEE International Conference on High Performance Computing, Data, and Analytics (HiPC 2024), 2024 (Students Research Symposium)

## PATENTS

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- **Patent:** *Hybrid Autonomous Underwater Vehicle for Flood Relief Operations* – 405990

## WORK EXPERIENCE

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- Teaching Assistant** Aug 2023 – Present  
Indian Institute of Technology, Jodhpur, India.
  - Computer Architecture, Fall 2023
  - Principles of Computer Science, Spring 2024
  - Data Structures and Algorithms, Fall 2024
  - Machine Learning with Big Data, Spring 2025
  - Algorithmic Thinking and its Applications, Spring 2025
- Guest Faculty** July 2022 – Feb 2023  
Pragyan Sthali School, Saharanpur, India.

- Taught mathematics at the junior level
- Taught computer science at the senior secondary level

**Software Engineer** – Intern  
Spiti, Bengaluru, India.

Jan 2022 – June 2022

- Worked on techs like nodejs, firebase, vuejs and mux
- Written code for automatic data backup projects
- Increased the coverage of the backend by writing well-structured unit tests
- Enhanced video player for video usage data capturing

**Developer Relation** – Intern  
DeepSource, Bengaluru, India.

March 2020 – Aug 2020

- Worked with the Developer Outreach Team on building documentation and technical content writing.
- Integrated DeepSource with several Open Source Projects

**Summer Intern**  
Ajira Tech, Chennai, India.

June 2019 – July 2019

- Worked on real-world problems on Object-Oriented Programming and Relational Database Modelling.
- Designed schema for internal tools
- Written Blogs for the company’s hiring team, which include various problem-solving approaches.

## PROJECTS

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### Data visualization of National Accounts Statistics

Feb 2019

*Ministry of Statistics and Program Implementation, Gov of India*

- Web-App made during SIH-19 to visualize real-time governmental economic data.

### IEEE-AMU Website

Aug 2019

*IEEE-AMU Student Chapter*

- Website for IEEE-AMU student chapter based on Nuxt.js and Firebase (Google’s cloud platform).
- Developed new signup flow to allow on-boarding of all sorts of members

### SEA ROV ZHCET

May 2020

*AUV-ZHCET club*

- SEA is a Remotely Operated Vehicle that deals with the algae plantation and monitoring coral reef health.

### Graph Analytics Pipeline

May 2024

*IIT Jodhpur*

- Developing a pipeline for running graph analytics algorithm in the parallel setting
- Programmed different dynamic graph models for batch generation

## TECHNICAL & COMMUNICATION SKILLS

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- IDE: Pycharm, Clion
- Programming Languages: Python, C++, Javascript
- Platforms & Frameworks: Django, Flask, FastAPI, Express, Vue, React
- Tools & Libraries: Git, SQLite, PostgreSQL
- Software Experience: MS Office Suite, Libre Office Suite
- Operating Systems: Windows, Macintosh, Ubuntu

## VOLUNTEERING

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- Coordinator Web Development at IEEE AMU student branch
- MTS AUV ZHCET secretary
- Mentor at AMU-OSS (open source software society)
- Web developer at SSGSA
- Student Guide at Student Wellbeing Committee (SWC), IIT Jodhpur

## PROFESSIONAL SERVICE

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- UPCON 2019 co-organizer at Aligarh Muslim University
- Winter School 2023 organizer at IIT Jodhpur
- Technical reviewer of the book *Machine learning automation with TPOT* published and credited by Packt Publications
- Technical reviewer of the book *Building Data Science Applications with FastAPI* published and credited by Packt Publications
- Technical reviewer of the book *Time Series Analysis with Python* published and credited by Packt Publications
- Reviewer at IEEE Transactions on Parallel and Distributed Systems (TPDS)

#### SELECTED INVITED TALKS

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- Lightning Talk at Pycon Africa 2020
- HPC Synergy at IIIT Sricity Tutorial on parallel programming frameworks (July 2024)
- Invited Talk at Indian Symposium on Computer Systems (IndoSys) at MIT Bangalore, co-hosted by IISc Bangalore (July 2025)

#### REFERENCES

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Available on request