

EDUCATION

PhD, Ashoka University, India	2018 – Present
M.E., BITS, Pilani, India	2007-2009
B.E.(Hons), BITS, Pilani, India	2001-2005

WORK EXPERIENCE

Research Fellow Ashoka Mphasis Lab, Ashoka University	JUN 2021 — Present Sonipat, India
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- Primary area of work: Ensemble methods in machine learning on tabular data for medical applications
- Developed a hybrid framework, SynthPop++, for generating a country-scale synthetic population
- Developed a technique for robust classification of near-out-of-distribution (OOD) data
- Using a basket of machine learning models for enhanced forecasting of antiretroviral therapy demand in India

Assistant Professor Presidency University	AUG 2015 — JUL 2018 Bangalore, India
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- Taught various courses for students from the School of Engineering from 1st year to 4th year
- System administrator for Moodle (open-source learning management system), conducted online exams for university students, entrance exams for PhD students
- Provided technical expertise and developed solutions for the office of Controller of Examination to make exam results available online
- Provided technical expertise and developed solutions for the office of Practice School to manage the entire workflow of students' internship
- Starting with the inception of the university, helped set up various academic and administrative processes, mentoring students, and guiding them in their projects

Tutor Gurukul	OCT 2012 — MAR 2015 Pichhore, India
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- Taught mathematics for students of class IX to class XII

Teaching Assistant BITS, Pilani	AUG 2007 — JUL 2009 Pilani, India
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- Assisted in teaching and development of various courses at the undergraduate level
- System administrator for mail Server for 5000 users running on LAMP stack
- Exam portal maintenance and development for the division of Work-Integrated Learning Programs (WILP)

RESEARCH EXPERIENCE

OncoMark: A High-Throughput Neural Multi-Task Learning Framework for Comprehensive Cancer Hallmark Quantification

Accepted for publication at Communications Biology, 2025

BharatSim: An agent-based modeling framework for India

PLOS Computational Biology, 2024

Poster presentation titled "Machine Learning Methods for Enhanced Forecasting of Antiretroviral Therapy Demand in India"

Gupta-Klinsky India Institute, Johns Hopkins University, 2024

Poster presentation titled "Machine Learning Methods for Enhanced Forecasting of Antiretroviral Therapy Demand in India"

STEM Expo - "Caliper", Ashoka University, 2024

Poster presentation titled "FedTree: Federated Learning on Tabular Medical Data"

ICGA, 2023

Oral Presentation titled "SynthPop++: A Hybrid Framework for Generating A Country-scale Synthetic Population"

AI4ABM Workshop, ICLR, 2023

Oral Presentation titled "Generating Synthetic Population"

New in ML Workshop at ICML, 2022

Error analysis in the reconstruction of a parabola in 3D from two arbitrary perspective views

Proc. SPIE 5675, Vision Geometry XIII, 2005

PATENTS

CANCER HALLMARK ACTIVITY QUANTIFICATION SYSTEM

Patent filed at the Indian Patent Office, July 2025

TALKS/SEMINARS

BharatSim: An agent-based modelling framework for India

Mar 2025

1st Agent-based Modeling India Workshop, IIM Kozhikode

Monkeys on Typewriters: Is Feature Selection Useful for High-Dimensional Data?

Nov 2024

CS Colloquium, Ashoka University

Tech, Data and CS

Jun 2024

Young Scholars Programme, Ashoka University

INTERNSHIPS

DevTest Intern JUL 2004 — DEC 2004

Netscaler Pvt. Ltd., Bangalore, India

- Test Automation for High Availability using PERL modules
- Responsibilities included writing test plans and test scripts(Using PERL) for High Availability (HA) feature of NetScaler device family

Intern MAY 2003 — JUL 2003

Chambal Fertilizers and Chemicals Ltd, Kota, India

- Relay co-ordination studies using ETAP
- Conducted literature survey for relay coordination between the primary and secondary relay
- Analysis using ETAP (Electrical Transient Analyzer Program) software

SKILLS

Machine Learning/Data Science	NumPy, Pandas, SciKit-learn, Excel
Programming Languages	C, Python, PHP, Perl, R
Tools	Git, \LaTeX
Other	MySQL, LAMP administration, Web Content Development and Management
Communication	Hindi (Mother tongue), English(fluent), French (basic)

PROFESSIONAL ACTIVITIES

Reviewer for the Tiny Papers at ICLR	2024
Attended the workshop on Computing Research in Curricula: Knowledge, Education & Training conducted at IITGN	Feb 2024
Member of Program Committee for the Table Representation Learning (TRL) workshop at NeurIPS	2023
Graduate Teaching Assistant for AI/ML Winter School organised by Princeton University and Ashoka University	Dec 2022
Volunteered at ICML	Jul 2022
Volunteered at ICLR	Apr 2022
Volunteered as Tech Producer for Teleconference Sessions and HelpDesk Operations at GECCO	Jul 2021
Volunteered at Big Data Analytics (BDA) Conference	Dec 2020
Placement volunteer for the Computer Science Association (CSA), BITS, Pilani	Jan-May 2005

AWARDS AND ACHIEVEMENTS

Shared 1st place in national-level C Programming contest 'Smash the BUG' held during APOGEE, BITS, Pilani	Mar 2005
Shared 1st place in national-level C Programming contest 'CHAOS' held during APOGEE, BITS, Pilani	Mar 2004
Merit-cum-Need Scholarship recipient at BITS-Pilani during First Degree	2001-2005
Ranked 1st among 200,000+ students in the Class XII Merit List of the Madhya Pradesh State Board	2001
Won 1st Prize in an essay competition organized by the Ministry of I&B, Government of India in class XII	2001
Ranked 39th among 200,000+ students in the Class X Merit list of Madhya Pradesh State Board	1999

MISCELLANEOUS

Actively participated in events/competitions organized in Citrix Systems India Pvt. Ltd., Bangalore, India	2005 – 2006
Acted in a stage play during a Theatre workshop organized by Hindi Drama Club, BITS, Pilani, titled Til ka Tad	2005