

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 <i>Ashoka Mphasis Lab, Ashoka University</i> Area of research: Ensemble methods in machine learning on tabular data for medical applications	JUN 2021 — Present <i>Sonipat, India</i>
Assistant Professor <i>Presidency University</i> - 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. Similarly 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.	AUG 2015 — JUL 2018 <i>Bangalore, India</i>
Tutor <i>Gurukul</i> Taught mathematics for students of class IX to class XII	OCT 2012 — MAR 2015 <i>Pichhore, India</i>
Teaching Assistant <i>BITS, Pilani</i> - 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)	AUG 2007 — JUL 2009 <i>Pilani, India</i>
Software Test Engineer <i>Citrix Systems India Pvt. Ltd.</i> - Developed and maintained in-house softwares as a Member of the Networking DevTest team - Worked on Regression testing and Unit testing for High-Availability (HA) feature of NetScaler device family	JUN 2005 — DEC 2006 <i>Bangalore, India</i>

RESEARCH EXPERIENCE

scFS: systematic evaluation of feature selection strategies reveals transcriptomic redundancy in single-cell RNA sequencing
Under Review

Cross-Modal Mapping of Cancer Stem-Like Cell Plasticity Using Deep Learning
NAR Cancer, 2026

Predictive Performance is Often Insensitive to Feature Selection in High-Dimensional Biological Classification
ICLR 2026 Workshop on Machine Learning for Genomics Explorations

Poster presentation titled "Adaptive machine learning for HIV drug demand forecasting: a case study in india"
Epidemics, 2025

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

(Indian Patent Application No. 202511064233, filed July 2025, status: under examination)

SYSTEM TO DETERMINE STEM-LIKE STATE PROFILING OF TUMOR SAMPLES AND A METHOD THEREOF

(Indian Patent Application No. 202411074804, Oct 2024, status: filed)

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 (Electrical Transient Analyzer Program) software

SKILLS

Machine Learning/Data Science

NumPy, Pandas, SciKit-learn, Excel

Programming Languages

C, Python, PHP, Perl, R

Tools

Git, $\text{\LaTeX}$

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, ICLR

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