

Bhavesh Neekhra

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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

JUN 2021 — Present

Mphasis Lab for Machine Learning and Computational Thinking, Ashoka University

Sonapat, India

- Generated country-scale synthetic population using a novel hybrid of statistical and machine learning models
- Led a team to collate, clean and make available cell gene expression data in a format usable for ML models (from open-sourced datasets)
- Using ML models in predicting cancer metastasis
- Ongoing work on the use of machine learning models on tabular medical data

Assistant Professor

AUG 2015 — JUL 2018

Presidency University

Bangalore, India

- Engaged since the inception of the university, helped set up various academic and administrative processes
- 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 to the office of Controller of Examination to make exam results available online
- Provided technical expertise to the office of Practice School to develop an online portal to manage the entire workflow of students' internship

Tutor

OCT 2012 — MAR 2015

Gurukul

Pichhore, India

- Helped school children in learning problem-solving techniques
- Taught mathematics for students of class IX to class XII

Teaching Assistant

AUG 2007 — JUL 2009

BITS, Pilani

Pilani, India

- 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)

Software Test Engineer

JUN 2005 — DEC 2006

Citrix Systems India Pvt. Ltd.

Bangalore, India

- Developed and maintained in-house software as a Member of the Networking DevTest team
- Worked on Regression testing and Unit testing for High-Availability (HA) feature of NetScaler device family
- Extensive experience working with LAMP stack

RESEARCH EXPERIENCE

Precision Profiling of Cancer Stem Cells Using Artificial Intelligence-Based Digital Cytometry

Cell, 2023 Under Review

BharatSim: An agent-based modeling framework for India

PLOS Computational Biology, 2023 Under Review

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, 41 (January 31, 2005) Published

INTERNSHIPS

DevTest Intern

Netscaler Pvt. Ltd.

JUL 2004 — DEC 2004

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

Chambal Fertilizers and Chemicals Ltd

MAY 2003 — JUL 2003

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)

ACTIVITIES

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 Conference

Dec 2020

Volunteered as Tutor with Gyaan Bodh, Nirmaan Organisation (NGO), Pilani

2007 – 2008

Actively participated in events/competitions organized in Citrix

2005 – 2006

Acted in a stage play during a Theatre workshop organized by Hindi Drama Club, titled **Til ka Tad**

2005

Placement volunteer for the Computer Science Association (CSA), BITS, Pilani

2005

AWARDS AND ACHIEVEMENTS

Shared 1st Position in National level C Programming contest 'Smash the BUG' held during APOGEE, BITS, Pilani

Mar 2005

Shared 1st Position in National level C Programming contest 'CHAOS' held during APOGEE, BITS, Pilani

Mar 2004

Merit Cum Need Scholarship holder at BITS-Pilani during First Degree

2001-2005

Secured 1st rank in Madhya Pradesh State Board's Merit List in class XII

2001

Won 1st Prize in an Essay writing competition organized by the Ministry of I&B, Govt. of India in class XII

2001

Secured 39th rank in Madhya Pradesh State Board's Merit list in Std. X

1999