

## EDUCATION

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- **Ph.D. in Computer Science at Virginia Tech (2023-Present)**  
*Coursework:* Security Risks of Generative AI; Scientific Knowledge-Guided Machine Learning; Network Security; Optimization for Machine Learning; Deep Learning.
- **M.Sc. in Data and Knowledge Engineering at Otto-von-Guericke Universität Magdeburg**  
*Selected Coursework:* Data Mining; Frequent Pattern Mining; Recommender Systems; Bayesian Networks; Advanced Databases; Distributed Data Management; Machine Learning; Information Retrieval.
- **B.Tech. in Computer Science and Engineering at GITAM University, India**  
*Selected Coursework:* Probability & Stats; Data Mining; Artificial Intelligence; Data Structures & Algorithms; Discrete Math; Databases; C, C++, Java & Unix Programming; Computer Architecture; Operating Systems.

## WORK EXPERIENCE

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- **Research Associate at University of Wisconsin-Madison**
  - Designed a *scalable cloud-based algorithm for private alignment* of DNA sequence data.
  - Worked with the whole human genome and high volumes of Next Generation Sequencing (NGS) data.
  - Evaluated scalability and accuracy using RNA-Seq, ChIP-Seq, SAMtools, and SimLord.
- **Student Research Intern at PisaSales CRM**
  - Performed a detailed evaluation study of existing visualization libraries and pitched to senior management a library to integrate with the existing software system.
  - Implemented visualization elements such as heat maps, chord diagrams, Venn diagrams, and hive plots.
  - Designed and integrated a *flexible visualization widget* for customer sales data onto a graphical dashboard.
- **Software Engineer 1 at Innominds Software**
  - Created *versatile UI elements* such as chatbots, visualizations, and navigation menus for BenchmarkONE's Customer Relationship Management and Sales Automation toolkit.
- **Systems Engineer at Tata Consultancy Services**
  - Developed a communication portal using C# and Microsoft SQL for Microsoft India's weekly newsletters.
  - Migrated the portal to the cloud based on the client's specifications.
  - Responsible for client communication and maintaining content on the cloud.

## TECHNICAL SKILLS

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- **Languages:** Python; C#; Java; SQL; JavaScript; L<sup>A</sup>T<sub>E</sub>X
- **Libraries:** PyTorch; TensorFlow; Scikit-learn; NumPy; Matplotlib; Pandas
- **Environments & IDEs:** Linux; Git; Google Cloud Platform; MPI; Cluster Computing; Jupyter Notebook
- **Databases:** Neo4j; MongoDB; Cassandra; Redis; MySQL
- **Frontend and Visualization:** SharePoint; HTML5; CSS3; Bootstrap; d3.js; Dimple.js; Gephi

## VOLUNTEERING

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- **Volunteer at STEM Santa Fe.** Led the team that mentored ~ 100 school girls for the "Pathways for Girls conference" held in Santa Fe, NM in November 2022.
- **Master's Mentor at Otto-von-Guericke Universität.** Organized social events for 100 incoming Master's students. Mentored international students on adapting to changes in cultural environments.
- **Organizer at Magdeburg Indians .** Organized a Summer Fest for about 1000 participants. Led the cultural team that organized several other annual cultural events.
- **Awards and Other Achievements (2004-2013).** Top 10 ranks in the Indian Math Talent Search Exam; Degree in South Indian classical music; Several prizes in the performing arts.