Ayushi Saigal

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EDUCATION

University of Wisconsin-Madison

Bachelor of Science: Electrical Engineering with specialization in Machine Learning and Data Science   May 2025

Certificate: Computer Sciences

Coursework: Probability & Statistics | Matrix in Machine Learning | Signal/Image Processing | General Chemistry

TECHNICAL EXPERIENCE

Data Science and Analytics Intern   June 2024 – Sept 2024

Times Of India   Delhi, IN

- Working in the Business Intelligence team, implemented advanced Python scripts that automated the collection and preprocessing of datasets exceeding 500000 rows, reducing manual data entry efforts by 75%
- Created complex SQL queries and used Excel functions to extract and analyze data from multiple databases
- Collaborated with stakeholders to derive insights from large datasets, driving data-driven decision-making
- Built interactive dashboards and reports in PowerBI, integrating data extracted from websites using the Selenium library

Machine Learning Researcher   Dec. 2023 – May 2024

Computational Optics Lab- Dept. Of Engineering   Madison, WI

- Developed neural network models in Python and PyTorch to denoise images using only noisy data, addressing the challenge of unavailable clean images in clinical settings, and gained practical experience in machine learning
- Enhanced proficiency in advanced machine learning techniques, big data handling, and algorithm development

Undergraduate Math Researcher   Sep. 2023 – Dec. 2023

MXM Lab- Dept. Of Mathematics   Madison, WI

- Generalized a strategy for three-dimensional slow K-Nim games, a type of combinatorial game theory
- Developed a recursive method for determining P-positions (winning positions) and N-positions (losing positions), reducing the time complexity and improving computational efficiency of the evaluation process by 25%
- Specialized in pattern recognition within game strategies, enhancing insights through data visualization tools

Image Processing Summer Intern   June 2023 – Sep. 2023

UW Hospital   Madison, WI

- Applied Fourier filtering to reduce noise and isolate crucial image components, improving image clarity by 40%
- Utilized thresholding techniques to convert images into binary formats, simplifying feature identification
- Leveraged MATLAB for complex computations, streamlining the image processing workflow

Event Manager

Wisconsin Union   Feb 2022 – Present

- Organized and managed over 25 events per day, demonstrating organizational and multitasking abilities   Madison, WI
- Entrusted with managerial responsibility for all three union buildings

LEADERSHIP EXPERIENCE

Vice President Of Internal Relations | *Society of Women Engineers*

- Spearheaded internal communications and collaboration for over 25 SWE members, driving engagement
- Managed logistics, attendance, and funding for national WE, WE Local and regional conferences, boosting member participation by 40% and enhancing professional development opportunities for all members

Student Ambassador | *College of Engineering*

- Engaged with prospective students and families by providing clear and informative campus tours, effectively communicating the benefits of the engineering program and student life to a group of over 50 people
- Acted as a point of contact for prospective students, answering questions and providing guidance

PROJECT

Elections Data Analysis | *Python, PostgreSQL, Django Framework*

- Developed an end-to-end data analysis pipeline using PostgreSQL, incorporating A/B testing to optimize data visualizations and explore user data, with direct applications for enhancing user behavior
- Integrated interactive maps and visualizations into a web interface built with Django