SURAJ NAVEEN

Madison, WI | +1 (608) 960-5400 | Portfolio | Email | Github | Linkedin

Education

University of Wisconsin-Madison

Bachelor of Science in Computer Science and Data Science

(May 2026)

Related Coursework: Object Oriented Programming I, II & III, Algorithms, Systems Architecture, Machine Learning, UI
Development, Discrete Mathematics, Linear Algebra, Data Science Modeling I & II.

Skills

Languages: Java, R, Python, Swift, HTML, CSS, JavaScript, C++, PHP, C#, AJAX, Docker, Go, Cuda Libraries: Matplotlib, Pandas, Scikit-learn, PyTorch, Tensorflow, React.js, React Native, Vue.js, Git, Gitlab

Experience

Undergraduate Research Assistant

Madison, WI

Department of Psychology | University of Wisconsin-Madison

(January 2024 - present)

- Assisting a Ph.D. candidate in Extended Reality (XR) and geometry education research, studying how spatial reasoning and gestures impact learning.
- Analyzing 100+ student interactions using R, Exploratory Factor Analysis (EFA), and Structural Equation Modeling (SEM) to identify cognitive learning patterns.
- Applying latent variable modeling to uncover key factors influencing student comprehension and problem-solving.

Undergraduate Tutor

Madison, WI

Computer Science Department | University of Wisconsin-Madison

(January - May 2024)

• Tutored students in Programming III and IV (Java), covering object-oriented programming, data structures, and software development, while holding drop-in hours to enhance coding and problem-solving skills

Software Development Intern

Bangalore, India (June - July 2023)

Evenforce Technologies Pvt. Ltd

- Developed the UI for Getafix, an AI-powered garage management tool, in collaboration with a team of 10, enhancing user engagement and streamlining workflow efficiency by 25%.
- Gained hands-on experience with PHP and MySQL by developing core features and working with a team of 5 to standardize project documentation for technical accuracy.

Honors

MADHACKS Hackathon 2023 | Hacker's Choice Award Winner

(March 2023)

Awarded Hacker's Choice for creating an innovative project among 100+ participants. Developed BroLang, a
beginner-friendly programming language using Gen-Z terms, designing its core parser and logic to support conditionals, loops,
and mathematical operations, making coding more accessible for beginners.

Projects

Music Recommendation System | Python, Spotify API, Flask, SVD, scikit-learn

- Developed a hybrid music recommendation system analyzing 100,000+ songs from the Spotify API, combining content-based filtering (danceability, energy, tempo) with collaborative filtering (SVD) for personalized results.
- Built a scalable Flask web app for real-time music suggestions, optimizing cosine similarity and matrix factorization to improve accuracy by 20% and reducing response time by 40% through efficient data processing.

Soccer Striker Performance Analysis | R, ggplot2, dplyr

• Analyzed FIFA striker performance (1930-2014) using R and Welch's t-test, identifying peak performance at age 36 and highlighting the role of experience in player effectiveness and tactics.

FashionMNIST Classification Using PyTorch | Python, PyTorch, Torchvision

Built and trained a neural network in PyTorch for FashionMNIST image classification, achieving 85.7% training and 84.7% test accuracy. Used techniques like ReLU activation, cross-entropy loss, and data preprocessing to improve performance.

More projects showcased on my Portfolio.