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, Data Science Modeling I & II, Discrete Mathematics and Linear Algebra.

Skills

Languages: Java, R, Python, Swift, HTML, CSS, JavaScript, TypeScript, C++, PHP, C#, AJAX, Go, CUDA

Frameworks & Libraries: React, Angular, Angular, js, Node.js, Vue.js, PyTorch, TensorFlow Tools & Databases: Matplotlib, Pandas, Scikit-learn, Git, GitLab, Postgres, PowerBI, Docker

Experience

Undergraduate Research Assistant

Madison, WI

Department of Psychology | University of Wisconsin-Madison

(January 2024 - present)

- Collaborating with a Ph.D. candidate to examine the effects of physical actions and gestures on geometric reasoning within Extended Reality (XR) environments, focusing on developing empirical models for educational strategies.
- Actively engaging in data collection and analysis using R, accumulating over 300 data points, applying Exploratory Factor Analysis (EFA) and Structural Equation Modeling (SEM) to enhance understanding of cognitive processes.

Undergraduate Tutor

Madison, WI

Computer Science Department | University of Wisconsin-Madison

(January - May 2024)

- Tutored 100+ students in Object-Oriented Programming (Java), Data Structures, and Algorithms.
- Provided debugging support and optimized student code for efficiency.

Software Development Intern

Bangalore, India

(June - July 2023)

- Evenforce Technologies Pvt. Ltd
 - Contributed to backend development and UI/UX design of Getafix, an AI-powered garage management tool.
 - Optimized database queries using MySQL, reduced response time by 40%, and improved project documentation consistency.

Projects

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

- Designed a hybrid filtering model analyzing 100,000+ songs via collaborative filtering (SVD) and content-based features.
- Built a scalable Flask app for real-time music recommendations, improving accuracy by 20%.

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.

$Soccer\ Striker\ Performance\ Analysis\ |\ R,\ ggplot 2,\ dplyr$

• 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.

Notitia Analysis Compilation | HTML, CSS, JavaScript, Python

Created a website to display data analysis projects. Highlights include:

- University Score Predictor: Used K-nearest neighbors algorithm to predict university ratings from 10+ factors, enhancing decision-making for prospective students.
- COVID-19 Trend Analysis: Visualized COVID-19 trends in India by analyzing data sets of over 100,000 entries.

More projects showcased on my Portfolio.

Honors

MADHACKS Hackathon 2023 | Hacker's Choice Award Winner

(March 2023)

Awarded the Hacker's Choice among 100+ participants for developing **BroLang**, a beginner-friendly programming language using Gen-Z terms, designing its core parser and logic to support conditionals, loops, and math operations.