

SURAJ NAVEEN

(608) 960-5400 | snaveen@wisc.edu | linkedin.com/in/suraj-naveen | github.com/Surajnav2210
Madison, WI | Open to Relocation

EDUCATION

University of Wisconsin–Madison

Madison, WI

Bachelor of Science in Computer Science and Data Science

Sep 2022 – May 2026

Coursework: Data Structures & Algorithms, Object-Oriented Programming, Database Management Systems, Artificial Intelligence, Machine Organization (C, x86 Assembly), Computer Engineering, Statistical Data Visualization, Data Science Modeling, Linear Algebra

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, Java, C, C++, SQL, R, Bash, HTML/CSS

Web & Backend: Node.js, Express, FastAPI, Flask, React, Next.js, React Native, REST APIs, GraphQL, Tailwind CSS

Databases: PostgreSQL, MySQL, MongoDB, Redis, Firebase, ChromaDB, SQL, NoSQL

DevOps & Tools: Docker, Kubernetes, AWS (S3, EC2, Lambda), GCP, CI/CD, Git, GitHub Copilot, JIRA, Linux, Agile/Scrum

EXPERIENCE

PBS Wisconsin (Capstone)

Madison, WI

Software Engineer

Jan 2026 – Present

- Building a **RESTful** search system with **FastAPI**, ChromaDB, and a **React** frontend that lets PBS staff query 500+ Airtable records using **natural language** instead of manually scanning through spreadsheets.
- Owned the embedding model selection and chunking strategy for the retrieval layer, **troubleshooting** poor search results by evaluating chunk sizes and overlap settings against real user queries to improve relevance.
- Working **cross-functionally** with PBS staff and a team of five students following **Agile/Scrum** with one-week sprints, weekly demos, and **JIRA** for backlog management. Ensuring changes are well understood before each release.

Dealcycle AI

San Francisco, CA

Full-Stack Software Engineer

May 2025 – Aug 2025

- Shipped two **production SaaS** apps **end-to-end** in **Next.js**, **React**, and **TypeScript**. Designed the **PostgreSQL** schema, managed **client-side** state with React Context and hooks, and built the **web** frontend component layer.
- Integrated **PostHog** analytics tracking 15+ user events across both apps, used the **data** to identify **performance** issues in the onboarding flow, and shipped a simplified version that improved retention.
- Built a RAG Q&A tool in **Python** with a **Node.js** integration layer that parses 20+ client PDFs into chunked embeddings and returns top-5 results via **RESTful web API**. Tuned config until results were relevant.

MAGIC Lab, UW-Madison

Madison, WI

Software Engineer

Jan 2025 – Nov 2025

- Built a **Python** pipeline that ingests, cleans, and runs **analysis** on 1K+ **data** points across 10 studies. Replaced a manual process that researchers were doing by hand, minimizing **defects** and improving **data** quality.
- Wrote **PyTorch** scripts that automated 20+ experiment sessions **end-to-end**, covering preprocessing, model training, and evaluation. Cut the per-session setup from a long manual process to a single command.
- Built the **R-based** statistical modeling toolkit (EFA, SEM) and refined it through weekly iteration with stakeholders, running **code reviews** and **testing** until outputs matched expected accuracy across all 10 **datasets**.

Evenforce Technologies Pvt. Ltd.

Bangalore, India

Software Engineer Intern

Jun 2023 – Jul 2023

- Built **React.js** dashboard features for Getafix, a **scalable SaaS** platform serving 200+ car dealerships. Connected **real-time** tracking panels to the **backend** through configurable **REST API** endpoints.
- Identified and rewrote slow **PostgreSQL/MySQL** queries causing **performance** degradation on the dispatch view. Participated in weekly **code reviews** and shipped features with a 10-person **engineering** team.

PROJECTS

RiskChain – AI Fraud Detection Platform | Next.js, FastAPI, Scikit-learn, NetworkX

Nov 2025

- Built a **full-stack** fraud detection platform with **Next.js**, **FastAPI**, and **Scikit-learn**, running 3 ML models on claims **data** in **real-time**.
- Implemented fraud ring detection using **NetworkX** graph **analysis** and **Random Forest** classification on structured **SQL** claim records.
- Designed the **React** dashboard with **data visualization** via React Flow, surfacing risk scores and fraud connections for reviewers.

Cloud Data Platform | Python, Flask, Pandas, PostgreSQL, AWS, Docker

Jan 2026

- Built a **Flask** backend with **Pandas** for processing CSV and Excel uploads, with **data** cleaning and validation for **datasets** up to 50K rows.
- Created **REST API** endpoints for file upload, **data** preview, and export with **PostgreSQL** storage and role-based access control.
- Deployed on **AWS S3** for file storage with **Docker containerization** and automated backup tracking for **dataset** versions.

ML Fall Detection – Wear Tech Inc. | Python, PyTorch, Keras, CNN

Jan 2026 – Present

- Training **CNN** fall detection models in **PyTorch** and **Keras** on 1,000+ labeled video frames from wearable sensors for Wear Tech Inc.
- Built **Python** evaluation pipelines that run batch inference across 4 model architectures, cutting false positive rates by 30%.
- Partnering with Wear Tech's clinical team to review edge cases and iterate on model training **data** for improved accuracy.