

Neel Bhansali

neelbhansali.com | github.com/neel-bhan | linkedin.com/in/neel-bhansali | neelbh99@gmail.com | 817-659-4024

EDUCATION

University of Wisconsin Madison

Bachelor of Science in Computer Science, Data Science

Madison, Wisconsin

Expected Graduation 2027

EXPERIENCE

Software Engineer Intern

June 2025 – Aug 2025

MiniOrange

Dallas, TX

- Designed and implemented features for a secure, web-based **Active Directory** management platform, enabling enterprise-scale user/group/OU administration, audit logging, and MFA-enabled self-service password resets.
- Created **React** frontend with dynamic forms, organizational management modules, and configurable CAPTCHA, improving operational efficiency and reducing admin configuration time.
- Built fault-tolerant **.NET REST APIs** with advanced error handling and monitoring pipelines.

Software Engineering Intern

March 2025 – May 2025

Represented Collective

Madison, WI

- Led full-stack development of a 10th-grade chemistry **VR learning game** in **Unity** with **C#**, integrating an **AI-driven adaptive engine** powered by **OpenAI** to personalize difficulty based on student performance.
- Built a **node.js + React + MongoDB** teacher platform featuring automated feedback reports, analytics dashboards, and seamless database integration for monitoring student progress and instructional effectiveness.

Research Assistant

May 2022 – July 2022

University of Texas at Dallas

Richardson, TX

- Gained in-depth knowledge of AI/ML techniques including NN, CNNs, LSTMs, SVMs, RL, and Decision Trees.
- Developed a face recognition system using machine learning to enhance University security infrastructure.
- Performed data cleaning, feature engineering, and hyperparameter tuning with **Pytorch** to optimize models.

Academic Tutor, Eye Level Learning Center

Jan 2023 – Current

Directed tutoring for 3rd–12th grade students, creating plans and collaborating with teachers to drive growth.

PROJECTS

College Resale Platform

Aug 2025 – Present

- Built a **university-exclusive** marketplace focused on resale of textbooks and sports tickets, with automated **school email verification**, geolocation search, and **web scraping** to list real-time campus sporting events.
- Architected full-stack platform using **React.js**, **TypeScript**, **Vite**, **Tailwind CSS** for responsive UI and **Node.js**, **Express.js**, **PostgreSQL** backend with **JWT authentication** and **REST APIs**
- Engineered real-time chat and notifications via **WebSockets** enabling instant bidding and live ticket updates.

Auto-Rotation Password Manager (AI Agent)

July 2025 – Present

- Built an **AI agent** with a **React** frontend to automate secure password rotations and vault updates.
- Designed a **YAML-driven adapter system** guiding the AI agent with **MFA** (TOTP, push, passkeys), **AES-GCM** encryption, and workflows to ensure reliability, scalability, and compliance across services.
- Created a local-first architecture with offline scheduling, real-time monitoring, and rollback for failed rotations.

Sign Language Interpreter

May 2023 – Aug 2023

- Implemented an AI-powered sign language translator using **CNNs** in **PyTorch**, achieving 95% accuracy.
- Built an interactive **GUI in Pygame** for real-time video-to-text translations, making the system user-friendly.

Workout Generator

May 2023 – Aug 2023

- Developed a personalized workout generator using **decision tree algorithms** to recommend routines tailored to user inputs such as age, gender, fitness goals, and target muscle groups.
- Designed an interactive dashboard to let users adjust preferences and receive updated workout plans in real time.

TECHNICAL SKILLS

Languages and Databases: Java, Python, JS, TypeScript, Rust, SQL, PostgreSQL, MongoDB, C#

Frameworks & Libraries: React, Node.js, Express, Tailwind CSS, Pandas, NumPy, Matplotlib, JavaFX

Tools & Technologies: Git, REST APIs, Docker, WebSockets, Agile/Scrum, Excel