Neel Bhansali

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

EDUCATION

University of Wisconsin Madison   Madison, Wisconsin
Bachelor of Science in Computer Science, Data Science   *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   May 2025 – Aug 2025
- 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 and deployed a full-stack platform with **React.js**, **TypeScript**, **Vite**, **Tailwind CSS** for responsive UI and **Node.js**, **Express.js**, **PostgreSQL** backend (JWT auth, REST APIs), running on **AWS** (**S3** for image storage + frontend hosting, **RDS** for PostgreSQL, **ECS + Fargate** for backend containers, **VPC** networking).
- Engineered real-time chat and notifications via **WebSockets** enabling instant bidding and live ticket updates.

Agentic Portfolio Updater   Aug 2025 – Present
- Built an **agentic AI pipeline** that detects new GitHub repos via **webhooks**, generates project summaries with the **OpenAI API**, and submits **PRs** updating a **Next.js/React** portfolio site for seamless portfolio integration.
- Designed a structured **JSON/YAML schema** for consistent project entries with automated tech stack detection and tagging, supporting scalable updates across projects; integrated README image parsing for project previews
- Implemented **AWS SQS**, **Lambda**, **S3** and **GitHub Actions CI/CD** with rollbacks, and PR validation.

Sign Language Interpreter   May 2024 – Aug 2024
- 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   Aug 2024 – Oct 2024
- 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 & Cloud: Java, Python, JavaScript/TypeScript, C#, SQL, AWS (Lambda, S3, ECS, RDS, VPC, Fargate)
Frameworks & Libraries: React, Node.js, Express, Unity, Tailwind CSS, PyTorch, Pandas, NumPy, Matplotlib
Databases & Tools: PostgreSQL, MongoDB, OpenAI API, Docker, Git, GitHub Actions, APIs, WebSockets, JWT