Annsh Navle

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Education

Purdue University West Lafayette, IN

Bachelor of Science - Double Major in Computer Science and Physics — GPA: 3.86/4.00 *May 2027*

Relevant Coursework: Data Structures and Algorithms, Operating Systems, Computer Architecture, Embedded Systems, Linear Algebra, Discrete Match, Object Oriented Programming

Technical Skills

Languages: Java, Python, Kotlin, Swift, C/C++/C#, SQL, JavaScript, TypeScript, HTML, CSS, x86-64 Assembly
Frameworks & Libraries: React, Node.js, Express, Angular, Spring Boot, Flask, Docker, Git, TensorFlow, scikit-learn, pandas, NumPy, Matplotlib, OpenCV, Selenium, Bootstrap, PyQt6, D3.js, Chart.js, Qiskit, AWS CDK
Certificates: Back-end Developer Professional (Meta), Machine Learning Engineer (Google), Qiskit Developer (IBM)

Experience

Vice President Projects February 2025 – Present

Purdue Stack *West Lafayette, Indiana*

- **Directed 6 agile projects with 50+ developers** by architecting shared CI/CD pipelines, standardized PR workflows, and reusable Node.js templates, reducing integration errors by 40%.
- **Developed Electron + OpenCV automation app for Akina Inc.** replacing a 7-day manual particle detection and measurement workflow with a one-click desktop application, improving accuracy and speed 10x.

Software Engineer (Full Stack) Intern May 2024 – July 2024

Mindcraft Software Ltd. *Mumbai, India*

- **Developed Spring MVC backend for enterprise banking systems** writing over 26,000 lines of production code across KYC, payments, and account modules deployed in production for 5+ enterprise clients.
- **Created Angular 16 interface for DocGPT** to enable enterprise clients to upload, prompt, and extract insights from large document repositories using an internal LLM API.
- **Reduced employee onboarding time by 30%** by building JWT-secured Spring/Angular training portal with role-based access, adaptive quiz modules, and analytics dashboards.

Research Developer August 2023 - December 2023

American Chemical Society (CAS) *Remote*

- **Developed Random Forest models using scikit-learn** to predict chemical reactivity risks and ranked hazard levels based on molecular structure and reaction properties.
- **Expanded the ACS hazard database by 20%** to support ongoing retraining of ML models with up-to-date data by automating data collection with Selenium pipelines.
- **Created Matplotlib dashboards for model validation** visualizing classification accuracy, precision-recall metrics, and top risk predictors for internal research review.

Projects

CS Alumni Dashboard | *React, Node.js, Express, PostgreSQL, Purdue SSO* May 2025 - August 2025

- **Built full-stack dashboard for 3,000+ Purdue CS alumni** with secure SSO login, enabling faculty and students to access, search, and visualize alumni data by company, role, and graduation year.
- **Created D3.js and Chart.js analytics** with server-side filtering and exportable reports to track salary distributions and internship placement trends across multiple cohorts.

ScrollFree | *Android (Kotlin), ML Kit, SpeechRecognizer, Accessibility API, TensorFlow* July 2025 – September 2025

- **Built first-of-its-kind hands-free scrolling accessory for smartphones** that replaces touch interactions with gesture- and voice-based navigation across any app.
- **Used Google ML Kit and TensorFlow Lite for gesture and speech recognition** through a custom on-device model optimized for sub-200 ms latency and real-time responsiveness.

Quantum Blackjack | *Qiskit, IBM Quantum, React, Node.js, Flask, D3.js* July 2025 - September 2025

- **Built a quantum strategy game using Qiskit simulators and IBM Quantum** to teach probabilistic logic, superposition, and entanglement through interactive Blackjack gameplay.
- **Developed AI-enhanced dealer logic with quantum-aware decision trees** integrating a Flask backend and D3.js visualizations to simulate quantum-based strategies dynamically.