

ANSH TANDON

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EDUCATION

Purdue University - West Lafayette, IN

Expected: May 2026

B.S. Computer Science (Engineering + AI/ML) and B.S. Data Science-Statistics

GPA: 3.5 — Dean's List

- **Relevant Coursework:** Data Structures and Algorithms, Computer Architecture, Object-Oriented Programming, Advanced C Programming, Discrete Mathematics, Linear Algebra, Statistics for Data Science, Engineering - VIP
- **Organizations:** ML@Purdue (Officer), Boiler Blockchain (Project Manager), Anvil Startup Incubator (Director)

EXPERIENCE

Johns Hopkins Applied Physics Laboratory (APL)

May 2024 – Present

Software Engineer Intern

Laurel, MD

- Implemented data verification functions in templated C++ scripts with multi-threading in OpenMP, resulting in 5x performance gains for Shard radar, and created CMake files for 20+ test directories for streamlining CI/CD pipeline.
- Developed a Doppler Processor with FFTs (Fast Fourier Transform) in Python for an airborne system through IQ samples from a receiver, and generated 4+ test cases that demonstrated an 86% reduction in sidelobe noise.
- Employed MATLAB & Rust for beam-scan loss in time-energy management tool and UI updates to control interface.

Purdue Electrical and Computer Engineering

Jan 2024 – Present

Lead Course Instructor

West Lafayette, IN

- Leading the Principles of Blockchain course on DeFi, Cryptography, Ethereum, Scalability, and Consensus Mechanisms.
- Utilized Hardat framework to save 100+ hours in the grading process and held weekly office hours to assist 50+ students.
- Designed a curriculum with 12 lectures on Solidity, React, Ethers.js, OpenZeppelin, NFTs, Code Review, and Unit Testing.

Accenture

Nov 2023 – Jun 2024

Software Engineer Intern

Greater Chicago Area

- Leveraged Python to perform data cleansing on scraped CSV files from over 800+ processes on SAP Signavio Insights.
- Engineered Random Forest & XGBoost regression models in scikit-learn with 78.9% accuracy to perform KPI categorization for 7 end-to-end process types and visualized results of top 10 issues with Seaborn & Matplotlib based on client benchmarks.
- Integrated SQL-based ETL pipeline to automate root-cause analysis with GPT4, reducing manual analysis time by 40%.
- Created front-end app in HTML/CSS & Streamlit to generate Signavio reports with PyPDF2 through a 3-step form.

Ziplyne

Feb 2023 – Oct 2023

Software Engineer Intern

Princeton, NJ

- Refactored Workday app in React to add new dynamic functionality for language support and event handlers for navigation.
- Leveraged Material-UI for responsive NavBar that reduced codebase by 20%, added modular JEST unit tests for validating function rendering, and restructured REST APIs to update the core Ziptyne dashboards on a PostgreSQL database.
- Created video demo for 4+ business clients, resulting in 10% sales improvement and 15% reduction in user complaints.

PROJECTS

Wisebucks.AI | *JavaScript, React, Bootstrap, Python, Keras, Flask, LangChain, RAG, SQL*

Sep 2023 – Present

- Developed a full-stack platform with future portfolio generation, investment simulators, and a chatbot for financial queries.
- Incorporated Financial Bert transformer in sentiment analysis process of top-10 articles through jQuery & AJAX requests, and crafted Monte Carlo simulations & an LSTM neural network yielding 96% accuracy for 30-day price prediction.
- Crafted RESTful API using Flask to facilitate real-time trading insights and store stock updates to MySQL database.
- Received \$6000 in VC funding from the JMEC Incubator as pre-seed, serving 1400+ members in ML@P.

Cardits | *JavaScript, React, Material UI, Ethers.js, Solidity, MetaMask SDK, IPFS*

Aug 2024 – Present

- Built a decentralized React app for blockchain markets to sell unused carbon permits from government audit reports.
- Optimized frontend by 35% through seamless navigation from landing page to current portfolio of carbon emission credits.
- Leveraged Ethers.js to interact with Ethereum blockchain to allow users to connect multiple wallets, and utilized IPFS for decentralized storage to handle 200+ audit reports to be referenced by smart contract.

FieldSyncDesign - ISA | *JavaScript, React, Node, SQL, Django, JSON, LangChain*

Aug 2023 – May 2024

- Pioneered a web-scraping application in React with 5+ million acres of geo-spatial data with GeoJSON & Leaflet through mapping 100+ program listings in real-time, resulting in 40% increased growth in sustainability initiatives.
- Integrated Django on form filled out by farmers on crop type, land size, and county location for ArcGIS cloud mapping.
- Fine-tuned scraping methodologies with GPT4 for 65% increased engagement by farmers, synchronized \$12.3 billion in government-subsidized programs, and loaded results to MySQL database with CRUD operations for data integrity.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, Solidity, Rust, HTML/CSS, JavaScript, TypeScript, R, Shell, SQL, Firebase, MongoDB

Frameworks: React, Next.js, Express.js, Node.js, Ethers.js, Tailwind, Django, Flask, FastAPI, Material UI, JUnit

Libraries: Pandas, NumPy, OpenCV, Matplotlib, PyTorch, TensorFlow, Scikit-Learn, RAG, NLTK, OpenAI

Tools: Git, Azure, AWS, GCP, Docker, Linux, GraphQL, Visual Studio, IntelliJ, PyCharm, JIRA, Kubernetes, Agile/Scrum

Certifications: Azure - CosmosDB, Google - Gen AI, Purdue Engineering - Advanced React JS, Hackerrank - Java & Javascript