Pranav Shukla

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EDUCATION

MICHIGAN STATE UNIVERSITY   **EAST LANSING, MI**

B.S Computer Science   *Sep. 2020 – Dec. 2024*

- *Courses*: Data Structures & Algorithms, Discrete Structures, Computer Architecture & Organization, Web Development, Computer Systems, Computer Graphics, Mobile Development, Data Analysis, Biometrics and Pattern Recognition

WORK EXPERIENCE

Vanguard   **Malvern, PA**

Software Engineer Intern, Global Investment Financial Systems   *May 2024 – Aug 2024*

- Engineered a suite of AWS Lambdas to automate ETF trading operations, cutting human errors and delivering annual savings of $8M while securing 90% code coverage with robust Pytest implementations and trimming testing cycles by 30% using Splunk and Postman.
- Streamlined team workflows and boosted GDP nowcasting efficiency through the adoption of Agile methodologies.

Software Engineer Intern, Global Investment Financial Systems   *May 2023 - Aug 2023*

- Optimized DSCR calculations in TypeScript to elevate trade performance by 5% and reduce trader stress by 10% through the deployment of an interactive bond trading heatmap built with the D3.js React library.
- Revamped data operations by crafting a custom React hook that enhanced data fetching speeds by 25% and overhauling the Fitch bond rating system with Python, Flask, and AWS boto3 to increase bond grade calculation speeds by 17%.

Software Engineer Intern, Global Investment Financial Systems   *May 2022 - Aug 2022*

- Constructed a resilient cloud infrastructure using SpringBoot that connected traders with real-time data suppliers, saving over $100K monthly, and automated data cleanup via AWS Lambda functions with Python's boto3 to cut storage costs.
- Configured 30+ Atlassian Bamboo CI/CD pipelines with YAML to optimize deployments for AWS-hosted services.

Michigan State University   **East Lansing, MI**

Technician, Communication Arts and Sciences   *Nov 2021 - May 2022*

- Provided comprehensive technical support to over 350 students and staff, swiftly resolving 5 network outages to restore connectivity.
- Installed extensive ethernet wiring across the building, ensuring secure internet access for more than 3,500 users.

RecTable   **Ann Arbor, MI**

Business Analyst Intern   *May 2020 – Aug 2020*

- Developed a streamlined product adoption strategy that slashed customer onboarding time by 50%.
- Boosted company sales by 75% through comprehensive market analysis and persuasive strategic presentations to executives

PROJECTS

AirFleet   Jan. 2025 - *Present*

- Crafted a robust authentication system using NextAuth for secure, isolated user account access and architected a scalable PostgreSQL database on Railway for persistent data storage.
- Developed a RESTful API with Django for efficient flight record management and built a sleek Next.js frontend to deliver a modern user experience.

Henry Ford Health – Research Synergy Vanguard Portal   Sep. 2024 - *Dec. 2024*

- Enhanced researcher collaboration and data retrieval by integrating Elasticsearch with Flask-based API endpoints.
- Automated the extraction of critical research data from Henry Ford's "Find A Doc" system using Python's BeautifulSoup4 and designed intuitive React.js UI components to ensure a seamless user experience.

SpartaHack X - WasteWise   Feb. 2025

- Developed a smart waste bin system with React and Flask, integrating an ESP32-S3 and ultrasonic sensor for monitoring.
- Leveraged PyTorch and Torchvision to train a computer vision model that classifies waste types and triggers alerts.

SKILLS

Languages: Java, C, C++, JavaScript, TypeScript, Python, SQL, HTML5, CSS
Libraries/Frameworks: Node.js, Next.js, React, React Native, Docker, Agile, AWS, Django, Flask, PostgreSQL, Pandas, Linux