

Nissi Otoo

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Education

Virginia Tech

EXP. MAY 2027

B.S. Computer Engineering: Machine Learning | Minors: Computer Science & Human-Computer Interaction

Relevant Coursework: Data Structures & Algorithms, Computer Architecture, Computational Engineering, Probability & Statistics

Cornell University, Certificate in Artificial Intelligence and Machine Learning

JUL 2025

Skills

Programming: Python, R, HTML, CSS, JavaScript, C++, C#, MATLAB

Libraries & Frameworks: scikit-learn, Pandas, NumPy, matplotlib, Keras, TensorFlow

Data Science: Predictive Modeling, Feature Engineering, EDA, Regression & Classification, Data Cleaning, Statistical Analysis

Experience

AI/ML Engineer – AI Studio Fellow | Salesforce

AUG 2024 – DEC 2025

- Collaborated with a team to design and develop a multi-agent Artificial Intelligence (AI) assistant, building ML models (Ridge Regression, GBDT, Random Forest) to analyze CRM records and enable enterprise AI workflows for sales teams.
- Engineered, trained, and evaluated classification and regression models achieving 76% accuracy and $R^2 = 0.87$ to aide sales prioritization and customer retention strategies.
- Built a friendly user interface (UI) with three AI agents that automated sales workflows and delivered technical knowledge for both technical and non-technical audiences to communicate project impact and business value.

Technology Consulting Launch Intern | Ernst & Young (EY)

JUN 2025 – AUG 2025

- Supported a client SAP integration project, analyzing 50+ system data flows and process dependencies to optimize business operations and increase reporting accuracy across testing phases.
- Built Power BI and Azure DevOps dashboards and Excel reports to visualize progress, testing performance, and system dependencies, enabling 10+ cross-functional stakeholders to track KPIs and make data-backed recommendations.
- Collaborated with 6 consultants and client stakeholders to identify process bottlenecks and enhance testing coverage valued at \$3B+ in client deliverables.

Projects

Accessible Reading AI Assistant | *Node.js, Tesseract.js, TensorFlow, OpenAI, LiveKit*

github.com/nssim516/reading-ai-assistant

- Built a voice-controlled web application for visually impaired children, integrating OCR (Optical Character Recognition), Text-to-Speech (TTS), Speech-to-Text (STT), and generative AI.
- Trained a TensorFlow model (92% accuracy) to verify book positioning before text extraction in browser.
- Implemented OpenAI GPT 3.5-based summaries and explanations to enhance reading comprehension and engagement.

Neural Network Sentiment Analysis | *Python, Keras, TF-IDF, NLP*

github.com/nssim516/ml-nn-sentiment-analysis

- Built and trained a neural network for sentiment classification using TF-IDF features from 18k+ unique terms, improving generalization with dropout and tuning to reach 82.6% test accuracy.
- Implemented a multi-layer architecture (64→32→16) with ReLU and SGD, debugging training curves and validation behavior to reduce overfitting and stabilize performance across epochs.
- Evaluated predictions with probability thresholds and inspected misclassified reviews to refine model design.

Yoga Studio Web App | *React.js, TailwindCSS, CSS, HTML, Figma*

github.com/nssim516/vinyasa-yoga

- Built and deployed a full-stack wellness web application in a 24-hour hackathon, delivering a mobile-responsive app with structured routing, modular components, and clean UI.
- Designed 50+ reusable UI components from Figma designs, applying component-based architecture and consistent styling to support scalable application development.
- Implemented user-focused features such as personalized dashboards, structured exercise libraries, and data-driven tracking views, emphasizing usability, accessibility, and clear information flow for end users.

Leadership

Regional Finance Chairperson | National Society of Black Engineers (NSBE)

MAY 2025 – PRESENT

- Built and managed relationships with 30+ corporate partners, leading sponsorship negotiations and career fair planning for the Fall Regional Conference (800+ attendees) while setting pricing structures to meet revenue goals.
- Developed Excel dashboards to track sponsorship growth and revenue pipelines, helping secure \$50k+ for 8 states.

Chapter Vice President | National Society of Black Engineers (NSBE)

MAY 2025 – PRESENT

- Oversaw chapter operations for a 17-member executive board, managing communication and engagement across 1,500+ followers and subscribers.
- Developed the chapter's official website and analyzed engagement data using dashboards, increasing web engagement by 40% in one semester and improving member retention and outreach to 200+ students.