

NIKITA GOSWAMI

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EDUCATION

NMIMS University, Mumbai, India

Candidate for Bachelor of Technology in Computer Engineering

Expected: Aug 2026

(CGPA 3.67/4)

PROFESSIONAL EXPERIENCE

Monash University, Melbourne, Australia – AI/ML Research Intern

May 2025 – Present

- Worked on Multimodal Large Language Models (MLLMs) for audio deepfake detection and explainability, specifically the zero-shot adaptability of Audio Flamingo.
- Constructed a dataset consisting of more than 3000 spoof and bonafide audio samples, by performing manual annotation based on certain artefacts, through developing a centralized interface for consistent annotation process for the team.
- Currently applying parameter efficient fine-tuning by leveraging Low Rank Adaptation (LoRA), on the annotated dataset to improve model robustness for audio deepfake detection and explainability.

Biofield Power Ltd, Indian Institute of Technology, Ropar, India - Frontend Web Developer Intern

Aug 2024 – May 2025

- Established a dynamic web application using Next.js and Tailwind CSS, to create a one-stop destination for industry professionals, farmers, and supply-chain personnel to connect and trade biomass.
- Designed intuitive and reusable UI components ensuring a strong, consistent, user-friendly, and multilingual interface for diverse user groups.
- Translated Figma designs into pixel-perfect, production-ready code aligning with modern frontend engineering standards.

ACADEMIC PROJECTS AND PAPERS

Generative AI-Based Framework for Vulnerability Detection and Cybersecurity Tutoring

- Developed a generative AI-based framework integrating vulnerability detection, explainable remediation tutoring and sandboxed (Docker-based) execution.
- Technologies used: NMap, OpenVAS, Nessus, OWASP Zap, Google Gemini, Anthropic Claude, Node.js, Docker.
- Authored a paper on the same which was presented at the 10th International Conference on Information and Communication Technology for Competitive Strategies (ICTCS-2025) (Paper ID: 1452) and accepted for publication in the Springer's Lecture Notes in Computer Science (LNCS) series.

High Recall Hybrid Ensemble System for robust Personally Identifiable Info Detection & Automated Privacy Risk Assessment

- Devised a high-recall hybrid Personally Identifiable Information (PII)-detection framework combining weighted Regex engines with a multi-model spaCy NER ensemble achieving 0.8324 recall for compliance critical applications.
- Technologies used: Python, spaCy, Regex, NER, BERT-NER, Microsoft Presidio.
- Authored a paper on the topic that has been accepted at The 3rd International Conference on Artificial Intelligence, Computer, Data Sciences and Applications" (ACDSA 2026) (Paper ID: 1611).

Intelligent College FAQ Chatbot

- Built an intelligent college FAQ chatbot by engineering a semantic-retrieval pipeline using SBERT, RoBERTa, MPNet and benchmarking models through FAISS-based, top-k evaluation.
- Technologies used: Python, MPNet, SBERT, RoBERTa, NLTK

'Wild Vision': Animal Detection and Classification

- Created a wildlife-detection and classification system using Histogram of Gradients (HoGs) for feature extraction and a Support Vector Machine (SVM)-Classifier enabling accurate multi-species detection from images.
- Technologies used: Python, Open CV, Scikit-Learn, NumPy, Matplotlib, Seaborn

TECHNICAL SKILLS & CERTIFICATIONS

- Programming languages, Web Technologies, Software and Methodologies: C++, Java, Python, Tailwind CSS, React.js, Next.js, Node.js, Git, Postman, Tensorflow, Keras, Scikit-learn, OpenCV, NumPy, NMap, OpenVAS, Nessus, OWASP Zap, Docker
- Knowledge of different operating systems: macOS, Windows, Linux
- AWS Cloud Architecting training focused on cloud infrastructure and core services
- Machine Learning Specialization by DeepLearning.AI and Stanford University via Coursera
- Microsoft Azure Fundamentals Cloud Concepts learning path
- Postman API Fundamentals Student Expert badge

EXTRA CURRICULAR ACTIVITIES

- Secured 4th position as a team in India in the Harvard Health Systems Innovation Lab Hackathon 2025 based on the topic 'Building High-Value Health Systems - Leveraging Artificial Intelligence'.
- Volunteered at Aarna Foundation, an NGO, by conducting classes, healthcare sessions, and distributing food to an orphanage.
- Served as a Technical Executive at the Association for Computing Machinery (ACM) committee of the college.
- Participated in Smart India Hackathon in 2024, created a mobile application enabling direct market access to farmers.