Anushka Rai

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EDUCATION

Bachelor of Computer Applications (BCA) Artificial Intelligence 2023 - 2026	Bennett University University in Greater Noida, Uttar Pradesh	9.85 (cgpa)
Senior Secondary Education (Class 12th)	St. John's School, Marhauli, Varanasi, ICSE	92.2 %
Secondary Education (Class 10th)	St. John's School, Marhauli, Varanasi, ICSE	91.5 %

PROFESSIONAL EXPERIENCE

Indian Institute of Technology (IIT) - Banaras Hindu University (BHU), Artificial Intelligence Intern   June 2024 to July 2024

Project Experience	▪ Contributed to an advanced **Object Detection project utilizing YOLO v8**, applying state-of-the-art AI technologies and methodologies. ▪ Enhanced expertise in **computer vision** and **machine learning**, while focusing on the development and **optimization** of cutting-edge models for **real-time object detection**. Gained hands-on experience with deep learning frameworks, data preprocessing, and model evaluation.
Other Responsibilities	▪ Demonstrated **leadership** by coordinating efforts within the team, ensuring timely completion of tasks, and maintaining high-quality standards in project deliverables. ▪ Assisted in **preparing research papers** related to the project, contributing to sections on methodology, data analysis, and results, with a focus on achieving publication-worthy quality.

SKILLS

Programming languages and frameworks	C++, Python, Java, TensorFlow, PyTorch, Hugging Face
Artificial Intelligence & Machine Learning	▪ **Deep Learning**: Expertise in building and optimizing Convolutional Neural Networks (**CNN**), Recurrent Neural Networks (**RNN**), Long Short-Term Memory (**LSTM**), and **Transformers** for various AI applications. ▪ Natural Language Processing (**NLP**): Proficient in using **BERT**, Hugging Face, and **RAG** for text analysis and language models. ▪ Model Optimization & Fine-Tuning: Skilled in **hyperparameter tuning**, model optimization, and **fine-tuning** to improve model accuracy and efficiency.
Data Structure and Algorithms (DSA)	▪ Strong knowledge of **data structures**, **algorithms**, and problem-solving using **C++** and **Python**.
Certifications	▪ **Supervised Learning**: Regression and Classification - **Stanford University** ▪ Applied Data Science with Python Specialization - University of Michigan ▪ Machine Learning: Clustering & Retrieval - University of Washington ▪ Introduction to Computers and Operating Systems and Security - **Microsoft** ▪ Operating Systems and You: Becoming a Power User – **Google**

COURSEWORK

Academic Projects	▪ Women's Safety App: **Ranked 13th** in Smart BU Hackathon for developing a women's safety app with real-time threat detection, SOS alerts, and safe zone identification using **TensorFlow** and **OpenCV**. ▪ Captain's Chase: Created a 2D platformer game inspired by Super Mario using **Python** and **Pygame** with hand-drawn graphics and animations. ▪ Gender Recognition System: Developed a machine learning-based gender recognition system for real-time gender classification using **Applied Machine Learning**. ▪ Aasha: Built an online **educational platform** for rural students offering learning resources and interactive maps using **HTML** and **CSS**.

LEADERSHIP EXPERIENCE

Positions of Responsibility	▪ Head of Core Research Division (CRD) at Bennett Undergraduate Research Society (BURS)

AWARDS & PUBLICATIONS

Research papers	▪ **"Advancement in Generative AI for Supply Chain"** – **Elsevier SSRN, Sep 2024** Explores how Generative AI transforms supply chain management by optimizing demand forecasting, inventory management, and supply chain processes, offering businesses a competitive edge through advanced predictive insights and data generation. ▪ **"FViT: Finetuned Vision Transformer for Improved Brain Tumor Classification"**- **Nit Raipur** Introduces a fine-tuned Vision Transformer (FViT) model for the early and accurate diagnosis of brain tumors using MRI images, achieving exceptional diagnostic accuracy (99.68%) and F1-score (99.68%) with superior performance over other models like ResNet50, VGG16, and LSTM.
Other Achivements	▪ **Dean's List Award - Bennett University (2023 & 2024)** Recognized twice for exceptional academic performance and maintaining top grades. ▪ Ranked 13th in Smart BU Hackathon for developing an innovative women safety app featuring real-time threat detection, location tracking, and safe zone identification. ▪ Smart India Hackathon (SIH), worked on coal mine shift-changing automation techniques to develop impactful real-world solutions.