ANUSHKA AGARWAL

Email: anushka24agarwal@gmail.com | Mob: (646)-210-4265 | LinkedIn: anushkaagarwal24 | Github: anushka24agarwal

EDUCATION

Columbia University New York, NY

M.S. in Computer Science, Machine Learning Track Aug 2024 - Dec 2025

- Coursework: Applied Machine Learning, Computer Vision, Deep Learning, Artificial Intelligence, Algorithms, Databases

R.V. College of Engineering Bangalore, IN

B.E. in Computer Science Engineering Dec 2020 - June 2024

- Coursework: AI and ML, Artificial Neural Networks, Object Oriented Programming, Advanced Algorithms, Data Structures and its Applications, Operating Systems, Database Design, Parallel Architecture

SKILLS

- Programming Language: C, C++, JAVA, Python, ABAP, SQL, HTML, Bootstrap, JavaScript
- Application Tools: GitHub, SAP Vistex, PostgreSQL, MATLAB, AWS, GCP, Postman, Visual Studio, Android Studio
- Frameworks: OpenCV, PyTorch, TensorFlow, Pandas, Numpy, Scikit-learn, Keras, Flask, Google Colab, Jupyter Notebook

PROFESSIONAL EXPERIENCE

Columbia Climate School New York, NY

Research Assistant Jan 2025 - Present

- Establishing an AI-powered automated system for identification of Phytoplankton species across global oceans via deep learning frameworks and image processing, reducing manual analysis time by 60%.
- Implemented image enhancement pipelines with OpenCV to process over 500 images, improving segmentation and input quality for better attribute selection and model performance.
- Utilized pre-trained ResNet-50 model enabling feature extraction from images and applied K-Means unsupervised clustering using TensorFlow and Scikit-learn library to classify species.

Threepio, Columbia Build Lab New York, NY

Software Engineer (Founding Team) Sept 2024 - Dec 2024

- Deployed a responsive website for the product on an AWS EC2 instance server, configuring Nginx as a reverse proxy and Gunicorn as application server to ensure high scalability and a seamless user experience.
- Initiated and led integration of React frontend with SQL database, optimizing data flow and application performance in collaboration with cross-functional teams.
- Developed AI models for dialect-aware audio transcription, enhancing subtitle accuracy for Arabic and Hindi by 25%, contributing to smooth multilingual accessibility.

Intel Bangalore, IN

Technical Intern Jan 2024 - June 2024

- Engaged as an enterprise application development intern under the Rebate Automation and Customer Agreement team.
- Fabricated enterprise architecture built leveraging ABAP language and collaborated with 3 technical leads to combine legacy system with existing technology on SAP Vistex software.
- Drove Q2 feature release by incorporating invoice and sales document numbers to the Calculation Run Workbench, improving claim upload functions and increasing efficiency of Claim and Agreement Workbench tools by 82%.

R.V. College of Engineering Bangalore, IN

Research Assistant Sept 2022 - May 2023

- Developed 'Linguistic Bridge', a web-based application leveraging OpenCV to recognize 215 Tamil temple inscription characters from scanned images and provide Devanagari script translations with audio output.
- Designed and trained CNN models for image pre-processing, segmentation and character recognition, achieving classification accuracy of 85% across 100+ inscription images.
- Authored research paper “Temple Inscriptions Recognition and Transliteration in Devanagari Script” presented at the International Conference on Vision Towards Emerging Trends in Communication and Network, published in IEEE Xplore.

ACHIEVEMENTS

- Winner of UNESCO India Africa International Hackathon 2022
- Winner of Smart India Hackathon 2022 Software Edition