

# ANANYA AGARWAL

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## Education

### Vellore Institute of Technology

Bachelor of Science in Computer Science; CGPA: 8.92

Sep 2021 – Present

Vellore, Tamil Nadu

### Deens Academy

Class 12th - 92.8 %

May 2021

Bangalore, Karnataka

## Experience

### Samsung R&D Institute Bangalore

PRISM Project Intern

June 2024 – Present

Remote

- Working on building a model to learn a new category without reducing accuracy of previously learned classes.

### AiDash

Data Science Intern

June 2024 – July 2024

Bangalore, Karnataka

- Implemented YOLOv8 architecture to detect alligator cracks on roads, achieving a precision of 91.26%.
- Enhanced accurate prediction chances by 50% through image augmentation on a dataset of 25,000 images.
- Tools & Technologies : Python, scikit-learn, OpenCV, PyTorch, NumPy, AWS

### National Aerospace Laboratories

Research Intern

Oct 2023 – Dec 2023

Bangalore, Karnataka

- Spearheaded VGG19 algorithm implementation, attaining 70% accuracy in symbol and shape recognition using a dataset of 90,000 images
- Utilized innovative techniques to develop a grid-based display system, achieving an 80% accuracy rate in identifying coordinates for various shapes and symbols.
- Tools & Technologies : Python, scikit-learn, OpenCV, TensorFlow, NumPy, Keras

## Projects

### Next Word Predictor | Python, NLP, TensorFlow, Deep learning

- Employs Recurrent Neural Network (RNN) architecture to predict the most probable word or sequence of words following a given input context, leveraging statistical patterns and linguistic structures.
- Enhances user interaction by accepting base text input, including the option for an empty string, and enables users to specify the desired number of words for the model to generate after the base text.

### Health Application | Python, Tkinter, MySQL, PIL

- Developed a Python application with tkinter, delivering a user-friendly interface that boosted engagement by 40% and reduced support inquiries by 25%.
- Elevated user satisfaction by integrating personalized features like a Calorie Counter and BMI Calculator driving a 30% increase in user activity.
- Improved user experience through age-based algorithms for tailored diet charts and workout plans, resulting in a 20% increase in satisfaction.

### Safe Site Predictor | Python, scikit-learn, matplotlib, Pandas, Numpy

- Designed and implemented a machine learning algorithm to accurately detect the authenticity of websites, resulting in a 97.85% accuracy rate.

## Achievements & Certifications

- Completed AWS SAA course and achieved **AWS Certified Solutions Architect Associate - SAA C03** badge.
- Won 1st place in envisioning technical & instrumental solutions for overcoming ill-effects of micro-gravity on astronauts.

## Technical Skills

**Languages:** C/C++, Python, SQL, HTML, JavaScript, Tailwind CSS

**Technologies and Tools:** Machine Learning, Jupyter Notebook, Numpy, Pandas, scikit-learn, VS Code

**Academic Coursework:** Data Structures, Algorithms, Networks, Databases, Operating Systems, Object Oriented Programming

## Leadership / Extracurricular

### Centre for Social Entrepreneurship and Development

Jan 2023 – Jan 2024

Head of Human Resources

Vellore Institute of Technology

- Streamlined club functionality by organizing and leading training sessions for members, resulting in a 15% improvement in overall performance.
- Worked with executive team to devise and execute club strategies.