Vishwas Dubey

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Education

Vellore Institute of Technology Expected graduation date: Jun. 2025
Bachelor of Technology in Computer Science and Engineering
Relevant Courses: Computer Programming: Java , Computer Programming: Python, Computer Networks , Data Structures and Algorithms , Design Analysis of Algorithms , Artificial Intelligence , Structured and Object-Oriented Programming , Machine Learning , Probability and Statistics , Complex Variables and Linear Algebra , Discrete Mathematics and Graph Theory , Engineering Physics

Experience

Feynn Labs March 2024 - May 2024
Machine Learning Engineer Intern (Upcoming)

- At Feynn Labs, as a Machine Learning Engineer Intern, will be responsible for prototyping AI products/services, conducting large-scale predictive market segmentation, and developing business/financial models using AI technologies.

Indian Institute of Technology, Roorkee Dec. 2023 - Present
Undergraduate Research Intern

- Engaged in comprehensive exploration and practical application of cutting-edge topics, including Physics Informed Neural Networks (PINNs), network theory and solenoid technology

Indian Institute of Technology, Bhilai Nov. 2023 - Present
Undergraduate Research Intern *NumPy, OpenCV, Python*

- Analyzing graphene structures, which typically possess random shapes and sizes with debris scattered throughout with the objective of developing a code that identifies and marks any components larger than 25x25 units.
- Furthermore attempting to create a system to locate and differentiate between mono and bilayers amidst diverse graphene structures, laying the foundation for subsequent precision enhancements in positional determination.

Adani Airport Holdings Ltd. Sept. 2023
Computer Vision Intern *NumPy, OpenCV, Microsoft Power BI, Python*

- Worked closely with Revenue Leakage Control Center (RLCC) to identify potential revenue loss areas and develop proactive strategies for prevention, enhance revenue protection and recommend corrective actions to mitigate revenue risks.
- Assisted in the development of an object recognition software to detect instances where objects make contact with human hands using numpy, opencv, computer vision models and python
- Applied computer vision techniques such as image processing, object tracking (using APIs), image classification using Keras-CNN and utilized the makesense.ai and LabelImg for annotation with the R-Mass-CNN template and YOLOv8 template respectively for image segmentation and custom object detection.

Vellore Institute of Technology - Chennai May. 2023 - Aug. 2023
Undergraduate Research Assistant

- Worked under Prof. Uma Maheshwari to create a novel acquisition function on Bayesian Optimization, particularly Monte Carlo Bayesian Optimization. *Research for the paper will resume once the winter semester begins

Projects

YOLO : Custom object detection Sept. 2023
Associated with Adani Airport Holdings Ltd. *NumPy, OpenCV, Python*

- Developed a custom object detection software utilizing the YOLOv5 template for two classes, whose annotation was done manually by LabelImg..
- Data preparation was done by reading and extracting the data from XML files and then converting the labels information to the pandas data frame.
- The processed data was trained by the YOLO model and the accuracy was increased from 0.13 to 77.3
- Prediction was done for the images after getting the detection from the YOLO model, performing non maximum suppression and then drawing bounding boxes on the respective predictions.

Tic Tac Toe : Android Application Sep. 2022

Self - Project *Android Studio , Java*

- Independently created a simple tic-tac-toe game as a personal project while gaining familiarity with Android Studio. This endeavor provided valuable exposure to the Android Studio environment without the primary goal of skill acquisition.

Leadership and Volunteering

Member of the Electrical and Programming Department Jan. 2022 - Ongoing

Humanoid Club

- Part of the humanoid club at my university for over a year, got exposure to robotics as member of the electronics and programming department.
- Orchestrating workshops, coding sessions, and events to enhance skills and encourage continuous learning.

Citizen Scientist Aug. 2021

NASA - National Aeronautics and Space Administration

- Analyzed dips in light curves (transits) recorded by the Transisting Exoplanet Survey Satellite in hopes of discovering planets around stars outside the solar system.Also searched for interstellar dust impacts in the foils of the collector of Stardust spacecraft.

Skills

Languages:

Python, C/C++, Java, CSS, HTML, SQL

Technologies & Tools:

Power BI, Git, Jupyter, Collab

Certifications:

Introduction to Packet Tracer, Introduction to C+, Introduction to Python, Introduction to Python (Excellence), Discussion On Humanoids, Programming for Everybody(Getting started with Python), Understanding Einstein: The special theory of relativity, What is Data Science? Recap : Introduction to Python (Machine Learning Track), Recap : Introduction to Python [Excellence] (Machine Learning Track) *Ongoing Courses : Database development on Oracle Cloud, Data Structures and Agorithms with Python, Web development bootcamp..