

P Vaibhav

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EDUCATION

PES University, RR Campus	B.Tech, Computer Science, 7th Sem	CGPA: 8.38	2021-2025
Deeksha Center For Learning (PCMC)	2nd PU Board Exam: 99.75%		2019-2021
Delhi Public School Bangalore, South	10th Standard Board Exam: 93.34%		2009-2019

EXPERIENCE

Gen AI Intern QuantStac (Founded by an ex-director at Flipkart and a director at Oracle)	Aug 2024 – Present
<ul style="list-style-type: none">Spearheading development at an early stage startup by working with Stable Diffusion models (SDXL, Flux, etc) for VFX in the film industry. Trained LoRA for Flux for 80% higher quality output in Img-Img workflows.Customised ReVideo node to work with 32 bit colour depth to be compatible for cinematic videography.	
Data Scientist Intern Accure (accure.ai)	June 2024 – Aug 2024
<ul style="list-style-type: none">Developed a comprehensive solution for pothole detection and depth estimation to approximate the volume of potholes and estimate the material needed for repairs.Utilised DPT (Dense Prediction Transformer) for depth estimation, ensuring a depth prediction accuracy within ± 2 cm. Implemented YOLOv5 for pothole detection, achieving an average accuracy of 90%.	
Data Scientist Intern Accure (accure.ai)	June 2023 – Aug 2023
<ul style="list-style-type: none">Developed a model to predict printed and handwritten for scanned documents in collaboration with Axis Bank and applied postprocessing to achieve 92% accuracy. Utilised Momentum, a proprietary tool for data modelling and analysis.	
Software Developer Intern Centre For Robotics, Automation And Intelligent Systems	May 2023 – Aug 2023
<ul style="list-style-type: none">Led the end-to-end development of 'Aid For The Blind' wearable device, integrating text-to-speech, object detection, emotion recognition, and navigation functionalities with 90% accuracy using SSD models.Spearheaded a novel solution leveraging Depth Maps for audio-guided navigation.	
Research Team Lead IEEE CS Bangalore Chapter (Research Paper)	Apr 2023 – Sep 2023
<ul style="list-style-type: none">Worked on feature correction of reflective surfaces for depth estimation models using stable diffusion.Utilised MiDaS, Zoe Depth, LeRes, etc for monocular depth estimation.	
Backend Software Developer Intern Cisco ThingQubator	Aug 2022 – Dec 2022
<ul style="list-style-type: none">Worked extensively with Google Drive API and Google Cloud API to implement a portal for assignment submission for an ed-tech startup under Cisco.Optimised document submission processes, reducing database footprint while enabling seamless access for teachers via Google Drive, resulting in a 40% cost-saving in storage expenses.	
Augmented And Virtual Reality Web Developer Intern VizardLab	Sep 2020 – Dec 2020
<ul style="list-style-type: none">Interned at Vizard Lab, a startup by a student at University of California Los Angeles, for web-based AR/VR development. Deployed a marker-based augmented 3D model on their website with cross-platform support.	

PROJECTS

Unbiased News Report Generation	Capstone Project (Ongoing)
<ul style="list-style-type: none">Training LoRA for Llama and BERT to detect political bias in news and LLMs to generate an unbiased news report.	
Background Music Generation (Research Paper)	TDL Project
<ul style="list-style-type: none">Leveraged Music Information Retrieval (MIR) and source separation to create a dataset of Carnatic music audio separated by Indian instruments and vocals.Developed and evaluated RNN and Transformer models for background music generation given audio samples of only vocals as input.	
Stock Price Prediction	Data Analytics Project
<ul style="list-style-type: none">Used SARIMAX and XGB-Regressor to get an SMAPE score of 0.0153 for forecasting stock Closing Price. Implemented Ensemble Voting Classifier for buy, sell, or hold strategy classification, achieving an 85% accuracy.Performed feature engineering to get RSI, Exponential Moving Average, Price Change values to increase accuracy by 40%.	
Portfolio Management System	DBMS Project
<ul style="list-style-type: none">Developed an interactive frontend and a database that fetches live stock market data using Yahoo Finance API.Users can buy and sell stock based on live data and profit/loss values are calculated based on the transaction history maintained in the database. Suggested stocks to users to invest in based on its performance.	
Image Processing Of Mathematical Graphs	Arithemania Hackathon
<ul style="list-style-type: none">Developed an image processing program using HoughLinesP algorithm to automatically extract the equation of 2D graphs from camera input. Placed in top 5 of the hackathon.	

TECHNICAL SKILLS

Programming Languages: Python, C++, C, SQL

Web Development: HTML5, Bootstrap, Javascript, CSS, MongoDB, Node.js, React.js, Expressjs, Aframe, AR.js, Flask

Data Science: Matplotlib, NumPy, MATLAB, Pandas, Seaborn

Machine Learning: Tensorflow, OpenCV, Scikit-learn, Keras, ComfyUI

EXTRACURRICULARS

Taekwondo: International level Gold, Silver and 2x Bronze medalist, Black Belt | | **Karate:** National level Gold medalist