Mukta Mahesh Vedpathak

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EDUCATION

Course	College / University	Year	CGPA / %
B.Tech.(CSE)	Indian Institute of Technology, Dharwad	2022-Present	8.38
Class XII (HSC)	AEMS, Baramati, Maharashtra	2020-2022	90
Class X (CBSE)	VPEMS, Baramati, Maharashtra	2007-2020	98

EXPERIENCE

• Intern | Acharya Academy Pvt. Ltd. (Project) [App Development]

December 2024

- o Real-world Product Development: Outing Request Management System for Hostels
- Developed a Flutter app with a Flask backend to streamline outing requests for students, wardens, guards and parents. Integrated Google Sheets API for real-time updates and managing student requests.
- Intern | IIT Dharwad (Project) Guide: Prof. Rajshekhar V. Bhat [IoT, AI, ML]

June 2024-Nov 2024

- o IoT for precision agriculture (soil moisture sensing device).
- Developed nRF52840 IoT nodes for soil moisture data collection and ESP32 for cloud communication. Built a Machine Learning chatbot to assist farmers and created a prediction model to forecast next-day soil moisture.
- Intern | IIIT Dharwad Guide: Prof. Animesh Chaturvedi [AI, ML, NLP]

June 2024-August 2024

- o Natural Language Processing (LLM), Web Scraping
- Conducted web scraping and data cleaning to extract Sanskrit words from ancient scriptures, translated and transliterated them into other Indian languages, and analyzed their similarities using various algorithms.
- Intern (Coding Tutor) | CodeKaroYaaro [Python, Communication]

March 2024-April 2024

• Taught children aged 6-15 the basics of coding in Python and Scratch.

PROJECTS

- SAM: Security and Management System (Project) Successfully designed, developed, and deployed a paperless outpass solution for IIT Dharwad using technologies like Flutter, Flask, Python, QR/Barcode scanning, Google Sheets API, and Google Sign-In enhancing efficiency, record-keeping, and student safety.
- Bulk Emailing and Mail Merge (Project) Designed a bulk emailing and mail merge software that includes features like batch processing, detailed delivery metrics, personalized email templates, and overcomes limitations like daily sending caps and high costs, built with technologies like FastAPI, Flask, and SMTP.
- Panorama Image Stitching (Project) Developed a panoramic image stitching pipeline using SIFT, FLANN(KNN)-based matching, RANSAC, and two blending techniques (Max Pixel Intensity and Weighted Distance Map).
- Bank Churn Prediction Model (Project) Developed a bank churn prediction model using KNN, logistic regression, decision trees, random forest, SVC, and neural networks and python libraries such as Pandas, NumPy, TensorFlow, Keras, and Matplotlib to identify the most accurate predictive model, enhancing customer retention strategies.
- Face Detection App (Project) Created a Face Detection app using Flutter for the frontend and Python Flask for the backend. The app uses OpenCV for real-time face recognition and detection.

SKILLS

- **Programming Languages**: C++, C, Python, Dart
- Frameworks and Libraries: Pandas, NumPy, PyTorch, Tensorflow, Keras, Matplotlib, Flask, Bootstrap, Flutter
- Web Technologies: HTML, CSS
- Databases, Scripting and Tools: SQL, MongoDB, LATEX, Beamer, Git, Bash, Wireshark

COURSES UNDERTAKEN

Data Structures and Algorithms, Design and Analysis of Algorithms, Discrete Structures, Software Systems Lab, Computer Architecture, Artificial Intelligence, Automata Theory, Deep Learning, Operating Systems, Data Bases and Information Systems, Computer Networks, Compilers, Computer Vision.

OTHER ACTIVITIES

- Best Girl Student 2024 at IIT Dharwad.
- Anchor at grand events like the visit of the Hon'ble Vice President of India to IIT Dharwad.
- Member of Academic Senate (UGAPEC) at IIT Dharwad.
- An active member of Dance, Literary, Dramatics, Fine Arts and Journalism club.
- An ex-member of the editorial board of the official quarterly magazine of IIT Dharwad: "Sambandh".