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EDUCATION

Vellore Institution of Technology Bhopal
B. Tech in Computer Science and Engineering (AIML) **August 2021- June 2025**
CGPA: 8.0/10.0

EXPERIENCE

Startech Software Pvt. Ltd. Bhopal
Machine Learning Intern **February 2024 – May 2024**

- Worked on the end-to-end development of a machine learning project , cleaned and prepared datasets with 10,000+ samples to ensure high-quality input data, improving the accuracy.
- Conducted data preprocessing including normalization, scaling, and feature engineering to optimize model performance with precision 85%-90%.
- Applied Python, pandas, NumPy, scikit-learn, and other relevant libraries also learn new tools during these 3 months.

IamNeo
DSA Extern **December 2023 - Feb 2024**

- Gained in-depth knowledge of 10+ data structures and algorithms, mainly including trees, graphs, heaps, and hash tables.
- Applied best practices for optimizing 99.9% code performance, memory usage, and runtime efficiency.
- Completed around 100 (approx) daily coding exercises and some projects, reinforcing theoretical concepts with practical application.

ACADEMIC PROJECTS

Smart EcoSort: Waste Segregation System **January 2024 – June 2024**

- Engineered a sensor-enabled, dual-compartment dustbin to automate waste segregation and provide real-time data for efficient urban waste management, collaboratively developed by a team of 8 members.
- Applied advanced machine learning algorithms to improve the accuracy of waste classification and segregation, supported by in-depth research on sensor technology integration through the review of over 10 research papers and using technologies like sensor technology, machine learning for real-time data monitoring.

Virtual Mouse Using Hand Gesture **January 2023 – April 2023**

- Developed a model enabling virtual PC control through specified hand gestures captured by a camera, leveraging computer vision and image processing techniques to accurately interpret hand movements (combinations using all 5 fingers) and translate them into cursor actions on the screen.
- Achieved an "A" grade for the project, highlighting its effectiveness and innovation, collaboratively executed by a team of 5 members with the help of Python, OpenCV, Convex Hull algorithm, image processing.

AI-IOT Enabled Automated Wheelchair (a prototype approach) **July 2022 – October 2022**

- Developed an IoT-enabled motorized 4-wheeled wheelchair powered by an electric motor, designed for individuals unable to propel a manual wheelchair, integrating AI and ML algorithms to enhance functionality and user experience.
- Led the coding and development efforts for the control system, collaborating with a team of 5 members, and achieved an "S" grade (topper's grade) utilizing Arduino (C++, C), IoT, Python, and many different Machine Learning Algorithms.

CERTIFICATIONS

- AIML Powered by Google Developers , SmartInternz.
- Programming in Java , Sheriyans Coding School.
- Applied Machine Learning in Python , Coursera.
- Computer Vision Certification , Vityarthi.

ADDITIONAL INFORMATION

Technical Skills: Languages: Java, C++, C, Python; Technologies: AI, ML, IoT, Computer Vision, Arduino; Libraries/Frameworks: ReactJs, OpenCV ; Tools: Git, VSCode, Node.js ; Databases: MySQL, MongoDB, Firebase ; Relevant Coursework:DS, OS, OOPS, DBMS ; Soft Skills: Analytical Approach, Dedicated, Responsible, Versatile.

Extracurriculars: Cyber Security Pledge: Ministry of Electronics & Information Technology ; BootCamp: CodeCadmey Central India ; Google Cloud Community Days: Google Developer Group, Bhopal ; Udemy: 100 days of Code in Python.

Hobbies: Finance, Stocks, Crypto, History, Travel .