

Adi Karthikeya Sunkara Balasubramanyam

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EDUCATION

University of Houston - Main Campus

Texas, USA

Master of Science in Engineering Data Science (CGPA: 3.83/4)

Aug 2024 - June 2026 (Expected)

Amrita Vishwa Vidyapeetham

Bengaluru, India

Bachelor of Technology in Electronics & Communication Engineering (CGPA: 8.09/10)

Aug 2020 - June 2024

WORK EXPERIENCE

NSF Data Science for Energy Transition, UH

May 2025 – June 2025

Data Science Intern

- Hands-on with Python, Orange ML, QGIS, Tableau, R, Stata, Google Earth, PCA, and ML models on real-world datasets.
- Achieved 0.8024 in a Kaggle-style competition on facies classification using PCA, ensembles, and evaluation metrics.

University of Houston, Katy, TX

Jan 2025 – May 2025

Teaching Assistant

- Assigned in teaching & grading "Pattern Recognition and Machine Learning" and "Engineering Data Analytics."

Corizo Edutech, India

Mar 2024 – Apr 2024

Data Science Intern

- Utilized Python and math for data analysis, modeling, and insight generation.

PROJECT EXPERIENCE

Real Estate Property Management System | MySQL, Draw.io, PHP, GitHub

Mar 2025 – May 2025

- Designed the Entity-Relationship Diagram (ERD) and contributed to database connectivity testing.
- Built a multi-role system (Buyer, Seller, Agent, Admin) with modules for listings, appointments, payments, and audits.
- Integrated a chatbot using LLM for dynamic query support and enhanced user interaction.

Machine Learning Projects on GitHub | Python, Jupyter, Scikit-learn, Tensorflow/Keras

Aug 2024 - Nov 2024

- Developed ML Models: Implemented models like perceptron, regression, decision trees, naive Bayes, ensemble and clustering.
- Real-World Problem Solving: Applied data analysis and predictive modeling to address practical challenges.
- Showcased Skills: Uploaded projects to GitHub to demonstrate proficiency in machine learning.

Smart Helmet to Enhance Rider Safety | Embedded C, IOT

Feb 2024 - May 2024

- Safety Features: Integrated sensors for usage monitoring, alcohol detection, and Bluetooth communication.
- User-Friendly Interface: Ensured seamless operation with an intuitive interface.

Facial Recognition using CNN | Python, Google Collab, Tensorflow/Keras

Nov 2023 - Dec 2023

- Developed a CNN-based facial recognition model with performance evaluation using accuracy/loss graphs and confusion matrix.
- Enabled efficient predictions and saved the trained model for easy reuse.

Solar Powered Floating Water Fountain | Solar energy, IOT

Feb 2023 - Jun 2023

- Renewable Energy: Utilize solar panels to generate energy for water displays.
- Sustainability: Reduce carbon emissions, promote eco-friendliness.

TECHNICAL SKILLS

- Languages & Database:** C Programming, Python, C++, MySQL, Power BI, MATLAB, JavaScript, HTML, CSS
- Developer Tools:** Google Colab, Jupyter, Anaconda, GitHub, MS Office
- Libraries & Frameworks:** NumPy, pandas, Matplotlib, Seaborn, NLTK, sci-kit-learn, PyTorch, Core ML, OpenCV, Node.js, React.js, FASTAPI
- Relevant Skills:** Data Analysis, Machine Learning, OOPS, Data Structures, DBMS, LLM, Deep Learning, Computer Networks, NLP, Data Visualization, Problem solving, Leadership, Teamwork

ACHIEVEMENTS

- City-Wide Talent Search Champion, IIT Tirupati** - Secured first place during 11th grade, showcasing exceptional problem-solving and innovation.
- Secretary, IEEE PELS Club** - Led the club, fostered collaboration, and executed impactful tech initiatives.
- Senior Executive, Smriti (Photography Club)** - Showcased advanced photography skills and led creative projects and exhibitions to elevate the club's impact.
- Senior Executive, Smriti (Photography Club)** - Attained the position of Senior Executive in Vedanta (Cultural Club), playing a key role in organizing and enhancing cultural events and initiatives.
- Senior Executive, Vedanta (Cultural Club)** - Played a pivotal role in organizing and enhancing cultural events and initiatives, fostering community engagement.
- Class Representative (4-Year B.Tech Program)** - Demonstrated strong leadership by representing the class effectively and addressing student needs throughout the program.
- Research Paper Submission** - Authored and submitted a research paper titled "IoT-Based Smart Helmet to Enhance Rider Safety", showcasing innovative solutions to improve road safety.

Community Services

- Participated in blood donation camps conducted by Rashtrottthana Blood Centre in Bangalore.
- Participated in the National Tech events, CII Innoverge(2022), NAAC Accreditation(2022), GHEDEX(2023).