

Aryan Rajesh

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Education

Vellore Institute of Technology

Bachelor of Technology in Computer Science and Engineering – 7.6 CGPA

Sri Chaitanya Junior College, Raman Bhavan 1

Higher Secondary Education in Mathematics, Physics and Chemistry – 9.7 CGPA

Vellore, Tamil Nadu

Sep 2020 – Aug 2024

Vijayawada, Andhra Pradesh

June 2018 – Jun 2020

Projects

HealthCure

Aug 2023 – Nov 2023

- Developed an end-to-end disease prediction web app using CNNs, Random Forest, and XGBoost for 7 diseases.
- Secured over 90% accuracy for COVID-19 - 93% and breast cancer - 92% detection using deep CNN models with transfer learning techniques.
- Enhanced COVID-19 detection with a CNN model reaching 93% accuracy, surpassing a 98% benchmark, and reducing computational requirements.
- Delivered 88% accuracy in identifying pneumonia and heart diseases utilizing sophisticated classical Machine Learning models.
- Engineered a brain tumor detection model with 99% accuracy using transfer learning, minimizing training data requirements.

House Price Prediction

Apr 2023 – July 2023

- Improved a Multiple Linear Regression model to 85% accuracy, validated by Mean Squared Error (MSE) and R-squared.
- Completed systematic assessments of 6 distinct machine learning models via GridSearchCV; findings revealed insights into factors driving model selection decisions.
- Engineered a predictive model surpassing alternatives, showing a 30% improvement in housing price prediction.
- Processed a comprehensive dataset by systematically addressing over 150 missing values and implementing robust outlier detection techniques, facilitating smoother data modeling for predictive analytics in real estate applications.
- Leveraged advanced statistical methodologies to dissect market data, achieving an MSE of 2.5 and R-squared value of 0.92; enabled stakeholders to make informed decisions that drove significant revenue growth in the real estate sector.

AGRI.AI

Dec 2022 – Mar 2023

- Designed AGRI.AI using ML and DL techniques, driving a 35% improvement in agricultural productivity through crop recommendations, optimized fertilizer suggestions, and early disease detection.
- Translated enhancements into benefits, generating a 30% surge in user engagement with a JavaScript front-end.
- Leveraged state-of-the-art ML techniques using random forests alongside CNN implementations; identified the 3 biggest causes affecting low crop yields across diverse farms in targeted regions.
- Cultivated a technology ecosystem boosting consumer interaction by 30% and data exchange efficiency by 40%.
- Directed JavaScript and FastAPI integration, driving a 50% boost in consumer interaction and 60% streamlining of data processing.

Skills

- **Programming Languages:** Python, Java, C++.
- **Web Development:** HTML, CSS, Tailwind CSS, Bootstrap, Bulma, JavaScript, Git, Flask, Django, MYSQL.
- **Data Science:** Pandas, NumPy, Keras, Matplotlib, Seaborn, Plotly, Scikit-Learn, NLTK, Hugging Face Transformers, Data Analysis, Artificial Intelligence, Machine Learning, Deep Learning, TensorFlow, PyTorch, Natural Language Processing, LLM, GPT-3.5, BERT, Probability, Statistics, Microsoft Excel, SQL, Microsoft Power BI, Computer Vision, OpenCV, Streamlit.
- **CS Fundamentals:** Data Structures and Algorithms, Operating Systems, Object-Oriented Programming, Computer Networks, Database Management System, Linux.

Certifications

- Databases and SQL for Data Science with Python – IBM.	Dec 2023 – Jan 2024
- Machine Learning with Python – IBM.	Oct 2023 – Nov 2023
- Data Visualization with Python – IBM.	Aug 2023 – Sep 2023
- Data Analysis with Python – IBM.	June 2023 – July 2023
- Artificial Intelligence and Machine Learning – Verzeo.	Apr 2023 – May 2023
- Python Programming with GUI Development – Internshala.	Feb 2023 – Mar 2023
- Python Development Internship – Octanet.	Dec 2022 – Jan 2023
- Microsoft Learn AI Skills Challenge – Microsoft.	Sep 2022 – Oct 2022
- Python Programming – HackerRank.	July 2022 – Aug 2022
- SQL and Databases – HackerRank.	May 2022 – June 2022
- Data Structures and Algorithms – HackerRank.	Mar 2022 – Apr 2022
- Python for Data Science, AI and Development – IBM.	Jan 2022 – Feb 2022

Achievements

- Achieved certification in diverse platforms and acquired 10+ skill badges from reputable sources such as Microsoft, IBM, HackerRank, Coursera, Octanet, Verzeo, and Internshala, demonstrating expertise in coding and data science.
- Demonstrated exceptional algorithmic skills by solving 400+ LeetCode challenges, showcasing a commitment to tackling complex problems.
- Achieved a 95% score in the JEE Mains, demonstrating proficiency in Mathematics, Physics, and Chemistry, which laid a strong foundation for further studies and a career in computer science.