Aarohi Verma

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GitHub | Website

LinkedIn

Bachelor of Engineering
in **Computer Science**

Masters of Science
in **Mathematics**

Birla Institute of Technology and Science, Pilani '26

Technical Skills

- **Programming Languages**: C/C++, Python, Java, Verilog, Prolog, Kotlin, SQL, HTML, CSS
- **Skills**: Machine Learning, Data Analytics, VCS(Git), Native Android Development
- **Softwares**: Adobe Illustrator, Adobe Photoshop
- **Key Courses**: DSA, Object Oriented Programming, Database Management Systems, Microprocessors and Interfacing, Digital Design, Mathematical Modeling, Graphs and Networks, Game Theory

Work Experience

•FN Mathlogic Consulting Services Private Limited
June 2024 – August 2024

Internship - Data Analytics — Remote

- Built a credit risk assessment project aimed at **predicting customer default**.
- Predictive Modeling: Developed and implemented advanced predictive models using machine learning techniques such as **logistic regression, random forests, gradient boosting, and XGBoost**.
- Conducted **comprehensive data preprocessing, including data cleaning, normalization, and transformation**. Engineered new features to improve model performance.
- Applied **cross-validation, hyperparameter tuning, and performance metrics** (e.g., AUC-ROC, precision-recall) to refine model accuracy.
- Utilized data visualization tools like **Matplotlib and Seaborn** for insightful analysis.
- Worked collaboratively in an **agile environment**, effectively communicating findings and insights.

• E-SUTRA Technologies Private Limited
May 2023 – July 2023

Internship - Mobile App Development — Remote

- Skillfully modified code across various different languages using different Tools, enhancing project flexibility.
- Adapted app code to align with specific client requirements. Integrated third-party services, such as Firebase and OneSignal, to enhance app functionality and user engagement.
- Contributed to the customization and successful publication of 5 apps on the Google Play Store, showcasing effective project management and delivery capabilities as a student intern.

Projects

•AI-Generated Image VS Real Image Classification under Dr. J.K. Sahoo
January 2025 - present

Graycoprops, Tensorflow, Numpy, Pandas

- **Developed Deep Learning Model**: Designed and trained a convolutional neural network (CNN) to classify images as AI-generated or real.
- Utilized Python for **image data preprocessing, augmentation, and feature extraction**, ensuring robust classification performance.
- **Engineered texture-based features** using Gray-Level Co-occurrence Matrix (GLCM) to enhance classification performance by capturing spatial dependencies in images.
- **Preprocessed large datasets** of 80,000+ images, applying normalization and noise reduction techniques to improve model accuracy and generalization.

• Indian Classical Music Classifier under Dr. Himadri Mukherjee
May 2024 - present

Python, Tensorflow, Numpy, Pandas

- **Developed Predictive Model**: Utilized machine learning techniques to create a model capable of predicting specific pieces from Indian classical music.
- Utilized Python for **audio data capture, preprocessing, and feature extraction**, ensuring accurate musical data analysis.
- **Preprocessed large datasets** of Indian classical music recordings to ensure high-quality inputs for the model, including noise reduction and normalization.

• Smart ECG E-health Project
May 2024 - present

Data Science

- Analyzed **network-related metrics** in the context of ECG data transmission, including **packet size, packet loss, RTT, time delay, lag**, and overall transmission efficiency.
- Evaluated the impact of network conditions on ECG data reliability and optimized transmission protocols to reduce delays and improve data integrity.
- Wrote Python scripts to calculate network metrics such as **delay, lag, and packet loss** for large ECG data sets, enabling detailed analysis of transmission performance.
- Gained proficiency in **Wireshark** to monitor and analyze network traffic, learning its applications in troubleshooting and optimizing data transmission systems.

CONFERENCES AND WORKSHOPS

- **Geek out with DSA Workshop**, Organized by: GeeksforGeeks | Date: Mar 2023
- **UI/UX Workshop**, Organized by: LOLLYPOP.DESIGN | Date: Mar 2023

Competitions

- **Amazon ML Hackathon**, Position: 119/2438 | Date: Sep 2024

Positions of Responsibility

- **Coordinator**, Alumni Relations Cell, **Led a team of 60+ student volunteers** to organize initiatives fostering student-alumni relationships through events, workshops, and speaker engagements.
  Managed social media presence and maintained a database of 3000+ alumni.