PIYUSH GUPTA

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WORK EXPERIENCE

Centre for Railway Information Systems | Software Developer Intern
(JULY 2023 – Present) | New Delhi, IN
- **Spearheaded** the design and development of the **Integrated Coaching Management System**, optimizing real-time train monitoring and resource allocation.
- Revolutionized status management with a responsive **Flutter platform**, enhancing decision-making and resource use.
- Architected the seamless integration of **Oracle backend services**, boosting railway data reliability and accessibility for improved efficiency.
- Drove data-driven project elevating **train monitoring, enhancing service quality and resource allocation** for a streamlined railway experience.

SHUNIYAVIGYAN | Flutter Developer Intern
(JAN 2022 – MAY 2022) | New Delhi, IN
- **Designed, developed, and maintained** a mobile application using **Flutter**, seamlessly integrating **AWS backend services** for smooth functionality.
- Led the development of "BHOLU," an innovative educational Flutter app for **bilingual programming** in Hindi and English.
- Innovatively introduced a **user-centric feature** facilitating seamless bilingual coding via a terminal, enhancing accessibility and inclusivity.
- **Integrated** comprehensive course modules, interactive quizzes, a daily leaderboard, and a discussion panel for queries, amplifying user engagement and fostering collaborative learning experiences.

SKILLS

Languages: C/C++, Python, Java, Dart, Kotlin, JavaScript, HTML, CSS, SQL
Tools and Platforms: Android Studio, Figma, Canva, and VS Code.
Libraries & Frameworks: Flutter, TensorFlow, Keras, Flask, NumPy, Pandas, Seaborn, Matplotlib, OpenCV
Databases: Firebase, MySQL, and MongoDB.
Other Technical Skills: Machine Learning, Deep Learning, Android Development, Git, Data Analytics, Data Science, Presentations
Extra-Curricular & Soft Skills: Problem Solving, Excellent Communication, Analytical Skills, Teamwork, Leadership, Agile, Adaptable

PROJECTS

CREDIT CARD FRAUD DETECTION USING FEDERATED LEARNING
Deep Learning | Federated Learning | MLP | TensorFlow | Python
- Engineered a **Federated Multilayer Perceptron Neural Network** (FedMLPNN) leveraging TensorFlow for **97.34%** credit card fraud detection accuracy.
- Achieved remarkable recall and precision rates of 97.42% and 97.28%, minimizing false positives and maximizing accurate identification.
- Demonstrated an impressive **AUC score of 99.63%**, underscoring FedMLPNN's robustness and discrimination capability.

BOOKMYPARKINGLOT- A PARKING MANAGEMENT APPLICATION
Flutter | Java (Spring Boot) | MongoDB | NodeJS | AWS
- Created an **intuitive user interface** to display **real-time data** on vacant parking spaces, which helps users save time and avoid the hassle of searching for parking spots and to address the challenge of finding parking spaces during peak hours.
- Implemented a **two-way system** for the app that includes both user and admin functionality, allowing users to view vacant parking spots and parking owners to manage and monitor their spaces.
- Demonstrated **strong problem-solving skills** and attention to detail in ensuring **accurate and up-to-date data** on parking availability.

ASTROCLASSIFY: AN ASTRONOMICAL SOURCE CLASSIFICATION SYSTEM
Machine Learning | TensorFlow | Python
- Utilized **ExtraTreesClassifier** to perform robust classification of astronomical sources based on photometric, spectroscopic, and mathematically derived features across 14 pre-defined classes.
- **Enhances understanding of celestial objects' properties**, aiding advanced research and expanding the frontiers of astronomical exploration.
- Achieved an initial Base Model Accuracy of 83.7%, further elevated to an impressive **91.9%** through refinement and optimization.

EDUCATION

BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING, NEW DELHI, IN (August 2020- July 2024)
Bachelor of Technology in Computer Science and Engineering
CGPA: 9.1/10

ACHIEVEMENTS

- **AWS AI and ML Scholarship Recipient (2023):** Awarded USD 4000 scholarship; Top 500 globally in advanced cohort.
- **SMART INDIA HACKATHON (2022):** Grand Finalist
- **Flutter Session Speaker (2021-2022):** Presented sessions twice at Google Developer Student Club - BVP
- **Academic Excellence:** 1st Rank, First Semester (All Departments). 8th Rank, First Year (Computer Science Department).
- **BVEST (2021), Beat the Base Return:** Secured 1st Position.

CERTIFICATIONS AND RECOGNITION

AWS AI with Python Nanodegree (AWS in Collaboration with Udacity) | **STMicroelectronics:** Embedded AI System | **Cisco**: Industrial Visit | **Ducat-**Machine Learning Training | **Udemy**-Public Speaking: A tactical approach | **Google QwikLabs-**Google Cloud Engineering Track | **Google QwikLabs** -Data Science and Machine Learning Track | **Goldman Sachs:** Engineering Virtual Program