# Piyush Gupta

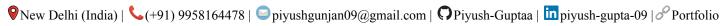New Delhi (India) | (+91) 9958164478 | piyushgunjan09@gmail.com | Piyush-Guptaa | piyush-gupta-09 | Portfolio

## SUMMARY

Data Scientist specializing in AI-driven automation, predictive analytics, and recommendation systems. Skilled in developing scalable ML pipelines, cloud-based AI solutions, and data-driven decision-making. Proficient in Python, R, SQL, and TensorFlow, with expertise in data engineering and visualization. Passionate about leveraging AI to optimize business performance and user experience.

## WORK EXPERIENCE

**Fluor Daniel India Private Limited**                                                                                      **Haryana, India**
*Associate Data Scientist*                                                                                                      *Jul 2024 - Present*
- Developed an **AI-powered recommendation model** that dynamically suggests the best visualization from **over 250 charts**, enhancing **decision-making speed by approximately 80%** and minimizing manual selection efforts.
- Automated ETL pipelines using **R and SQL**, decreasing **data processing time by 90%** and boosting workflow efficiency for large-scale analytics, while utilizing **Ggplot2 for insightful data visualization**.
- Designed interactive dashboards utilizing **D3.js, JavaScript, and Plotly**, facilitating **real-time analytics** for large-scale EPC projects and enhancing **decision-making speed**.
- Benchmarked over **75 EPC projects** across multiple locations, delivering **data-driven insights** that improved cost **forecasting accuracy by 20%** and optimized risk assessment.

**Fluor Daniel India Private Limited**                                                                                      **Haryana, India**
*Data Scientist Intern*                                                                                                          *Mar 2024 - Jul 2024*
- Assisted in developing predictive models for project analytics, focusing on **trend analysis and performance forecasting**.
- Automated data extraction, transformation, and validation processes using **R and SQL**, reducing **manual effort by 50%**.
- Collaborated with senior data scientists to enhance **data quality and preprocessing pipelines**.

**Centre for Railway Information Systems**                                                                              **New Delhi, India**
*Software Developer Intern*                                                                                                    *Jul 2023 - Sep 2023*
- Developed a **cross-platform mobile app** using **Flutter**, enabling **real-time coach tracking** and optimizing train scheduling for improved railway operations.
- Designed and integrated an **SQL database**, enhancing **data accuracy**, automating **record management**, and improving system efficiency in train time management.

## PROJECTS AND PUBLICATIONS

**FusionEXNet: An Interpretable Fused Deep Learning Model for Skin Cancer Detection**
- Developed a deep learning model integrating **EfficientNetV2S** and **XceptionNet** for enhanced skin cancer detection. Achieved **90.83% accuracy** using the **HAM10000 dataset** and **Explainable AI (XAI)** techniques for model interpretability.
- **Published in:** *International Journal of Computers and Applications, 2024 ( DOI: 10.1080/1206212X.2024.2385923)*

**Privacy-Preserving Credit Card Fraud Detection using Federated Multi-Layer Perceptron Neural Network**
- Developed a **federated deep learning model** for secure credit card fraud detection. Achieved **97.34% accuracy**, ensuring privacy-preserving decentralized learning using **TensorFlow Federated**.

**Enhancing Early Alzheimer's Disease Detection: An Ensemble Approach**
- Designed an **ensemble deep learning model** combining **ResNet50, DenseNet, MobileNet**, VGG16, Inception, NasNet, Xception, and EfficientNet for improved Alzheimer's disease detection. Achieved 99% classification accuracy on the Dementia Classification dataset.
- **Published in:** *SSRN, 2024* ( DOI: 10.2139/ssrn.4906497)

**BOOKMYPARKINGLOT – Smart Parking Management App**
- Developed a **Flutter-based mobile app** with real-time parking availability, **Google Maps integration**, and **Firebase backend**, reducing search time and congestion.
- Designed a two-way system for users and parking lot owners, enabling seamless reservations, automated check-ins, secure payments, and parking history tracking.

## SKILLS

- **Programming & Development:** Python, R, SQL, Dart, JavaScript, C++
- **Machine Learning & AI:** TensorFlow, Keras, Scalable ML Pipelines, Predictive Modeling, Deep Learning
- **Analytics & Data Visualization:** NumPy, Pandas, Seaborn, Matplotlib, Ggplot2, D3.js
- **Mobile & Web Development:** Flutter, Android Studio, Firebase, REST APIs
- **Certification:** Google Data Analytics Foundations | AWS Cloud Technical Essentials | DeepLearning.AI ChatGPT Prompt Engineering

## EDUCATION

**Guru Gobind Singh Indraprasth University**                                                                          **New Delhi, India**
*Bachelor of Technology, Computer Science*                                                                            *Aug 2020 - Jul 2024*
- GPA: 9.1
- **Awards & Achievements:**
  - Student Researcher Award (Demonstrating Excellence in Research)                                         Apr 2024
  - Best Paper Award at ICACCIS                                                                                                  Mar 2024
  - Smart India Hackathon Grand Finalist                                                                                      2022-2023
- **Relevant Courses:** Data Structures & Algorithms, Software Engineering, Database, Operating Systems
- **Extracurricular Activities:**
  - Technical Team Lead, Google Developer Student Club BVP - Led community growth, organizing **5 tech events**, and **mentoring developers** in **Flutter** and project management.                                          *Aug 2022 - Sep 2023*