PRABAL KUMAR DEKA

Phone: (+91) 8638517995 | **Email:** prabal456.pkd@gmail.com | **Guwahati, Assam** | LinkedIn | GitHub

SUMMARY

Entry-level Data Scientist with proven experience in Machine Learning, Deep Learning, and Natural Language Processing (NLP). Expertise in Python, SQL, feature engineering, predictive modelling and model evaluation with strong problem-solving abilities and experience in delivering data-driven insights for real-world applications.

PROFESSIONAL EXPERIENCE

Data & Research Analyst - Turing   **Sept 2024 - Aug 2025**
- Directed large-scale data annotation projects, implementing quality controls that ensured 90% accuracy across 50K+ data points.
- Optimized and fine-tuned LLMs, boosting mathematical reasoning accuracy by 95% and cutting inference time by 40%.

Computer Science Faculty – Potential & Concept Educations LLP   **Mar 2023 - Sept 2024**
- Designed and delivered comprehensive programming curricula for 100+ students in Class 11 & 12, covering Python fundamentals and database management (SQL queries, joins, views, CTEs).
- Conducted hands-on workshops on data manipulation and analysis using Python libraries, resulting in 90% student pass rate in board examinations.

PROJECTS

Cars 24x7: Car Damage Detection (Link)
- Built and compared **CNN, EfficientNetB0, and ResNet50** models to classify car damages into 6 categories.
- Optimized **ResNet50** using **Optuna** for **hyperparameter tuning**, achieving **79% accuracy** on test.
- Developed a **Streamlit web app** for real-time image-based damage detection.

LinkedIn Post Generator – Generative AI Project (Link)
- Developed an end-to-end Generative AI application using **LangChain** framework and **Llama-3.3** model for automated content generation.
- Implemented prompt engineering techniques and fine-tuning strategies to improve content relevance by 85%
- Built interactive web interface using **Streamlit** with real-time content generation capabilities.

Credit Risk Modelling – Prudent Partners (Link)
- Developed machine learning models (**Logistic Regression, Random Forest, XGBoost**) to assess credit default risk for loan applications
- Utilized feature engineering techniques and handled class imbalance using **SMOTE** and ensemble.
- Implemented hyperparameter optimization using **Optuna**, improving model **AUC** score to **0.89**.

TECHNICAL SKILLS

- **Programming Languages:** Python, C, C++
- **Databases:** MySQL
- **Frameworks:** Scikit-learn, PyTorch, spaCy, FastAPI
- **Tools & Technologies:** Power BI, Git, Jupyter Notebook, PyCharm, Google Colab, AWS SageMaker
- **Core Competencies:** Machine Learning, Statistical Analysis, Hypothesis Testing, A/B Testing, Deep Learning, Natural Language Processing, LangChain, Generative AI (LLMs, Prompt Engineering, Fine-tuning, RAG), Business Intelligence (Advanced Excel – Pivot Tables, Power Pivot, VLOOKUP)

EDUCATION

- **Central Institute of Technology, Kokrajhar, Assam**   **June 2018 - June 2022**
  B. Tech in Computer Science & Engineering.
- **GATE 2023 (CSE) Qualified**

LANGUAGES

- English: Professional Working Proficiency
- Hindi: Native/Bilingual Proficiency