Akshay Damodar Prabhu

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Data Engineer, Data Analyst

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Professional Experience

Data Analyst — Bengaluru, India
GiftoLexia Solutions Private Limited. — *July 2020 - Oct 2021*

- Trained on the I-VT (Velocity-Threshold Identification) algorithm and prepared datasets using Python by preprocessing, standardizing, and labeling eye-tracking data into risk categories (high, medium, low).
- Developed and implemented the I-DT (Dispersion-Threshold Identification) algorithm, enhancing early dyslexia detection by analyzing dispersion thresholds in eye-tracking data.
- Achieved over 90% accuracy in predictive models for dyslexia risk assessment, ensuring robust classification of children into risk levels for effective intervention.
- Contributed to reducing dyslexia screening time to 5 minutes per child by optimizing machine learning workflows, improving the tool's usability and scalability.

Computer Science Expert — Bengaluru, India
Chegg India Private Limited. — *Nov 2020 - Mar 2022*

- Assisted students in solving computer science-related questions, employing expertise in various programming languages and algorithms.
- Provided comprehensive explanations and step-by-step guidance to aid students in understanding complex concepts and solving problems effectively.
- Collaborated with a team of experts to ensure timely and accurate assistance to students, fostering a supportive learning environment.

Education

Northeastern University — Boston, MA
Master of Professional Studies in Analytics - GPA 3.95 — *April 2025*
Relevant Coursework: Predictive Analytics, Data Mining Applications, Big Data and Data Management, Data Warehousing and SQL

Dayananda Sagar College of Engineering — Bengaluru, India
Bachelor of Engineering - Computer Science and Engineering - GPA 3.78 — *Aug 2022*

Skills & Certifications

Areas of Expertise: Data Analysis, Data Wrangling, Business Intelligence, Database Management, Machine Learning
Technologies & Tools: R, Java, Python (Pandas, NumPy, Stats models, scikit-learn, Matplotlib, PyTorch, OpenCV), Jupyter Notebook, C/C++, SQL, JavaScript, HTML/CSS, Apache Airflow, PySpark, AWS
Data Analysis: Business Analytics, Predictive Analysis, Data Warehouse, Data Mining, Big Data Analytics, ETL, Statistical Analysis, Data Science, NLP, Machine Learning, Regression
BI Tools: Tableau Desktop, Advanced Excel, RShiny, Microsoft Power BI
Certification: AWS Certified Cloud Practitioner - (CLF-C02)

Projects

Enhancing Aviation Efficiency Through Machine Learning-Based Flight Delay Prediction — Sep 2024 - Nov 2024
Python, Pandas, Scikit-learn, Statsmodels, XGBoost

- Performed exploratory data analysis on 3 million flight records, uncovering departure delay as the key predictor of flight status.
- Developed a predictive model using logistic regression and XGBoost, achieving over 95% accuracy in classifying flights as on-time or delayed, enabling precise operational insights.
- Improved decision-making in the aviation sector by delivering actionable insights, enhancing scheduling efficiency, and reducing operational costs through advanced predictive modeling.

Predictive Modeling for H1B Visa Sponsorship — Apr 2024 - Jun 2024
Python, Streamlit, Pandas, Scikit-learn

- Analyzed over 33,000 LinkedIn job postings using machine learning models like Decision Tree, Random Forest, and XGBoost to predict the likelihood of H1B visa sponsorship.
- Optimized model performance by addressing class imbalance through feature engineering and advanced sampling techniques, improving prediction accuracy for underrepresented cases.
- Developed a web application that provides real-time predictions for visa sponsorship likelihood, helping both job seekers and employers optimize recruitment strategies.

Insurance Claim Prediction — Nov 2023 - Jan 2024
R, ggplot2, Hypothesis Testing, Regression Modelling

- Conducted comprehensive analysis of a Health Insurance Dataset, identifying influential factors impacting insurance claims such as age, BMI, smoking status, and exercise habits.
- Applied advanced analytical methodologies including regression analysis and regularization techniques to develop predictive models accurately estimating insurance claim amounts and predicting the likelihood of diabetes, enhancing decision-making for insurers and policymakers.

Other Experience / Co-Curriculars

Global Student Mentor — Boston, MA
Northeastern University — *Aug 2024 - Present*

- Mentored 70+ incoming international students for a smooth transition to college life and U.S. culture, fostering engagement with the Northeastern community and optimizing resource utilization.
- Organized international events by collaborating with various university departments to ensure smooth execution and successful outcomes.