




PRAMOD KUMAR

College Park, MD

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Education

University of Maryland, College Park

August 2024 – Present

Master of Science in Data Science

College Park, Maryland

Courses: Statistics and Probability, Machine Learning, Data Visualization, Database Management

Vellore Institute of Technology

August 2018 – May 2022

Bachelor of Technology in Electronics; CGPA: 3.48/4.0

Chennai, India

Experience

Accenture Solutions

October 2022 – November 2023

Advanced Application Engineering Analyst

Chennai, India

- Developed and enhanced APIs for a banking website with Nest JS, enhancing data processing speed by 30%, resulting in a 10% improvement in overall system performance.
- Implemented Real-Time API Logging using Kibana, enabling comprehensive monitoring and analysis, which led to a 22% reduction in incident response times and improved system reliability.
- Used MongoDB for flexible NoSQL data storage and PostgreSQL for structured data management in micro services, ensuring data integrity and flexibility, which increased data retrieval efficiency by 20% and reduced data redundancy.

Neyveli Lignite Corporation

February 2022 – May 2022

Computer Vision Research Intern

Neyveli, India

- Mitigated Safety incidents due to manual inspection using automated aerial analysis (UAVs) and ML models.
- Analyzed 8 years of historical data on past incidents and near misses to identify root causes and risk patterns.
- Reduced cost of personnel by 15% by deploying framework to automate inspection of vulnerable grounds.
- Collaborated with geological engineers to optimize training samples boosting prediction accuracy by 11%.
- Presented drainage improvements to management using dashboards made in Power BI to mitigate key operational risks.

Projects

Strategic Market Analysis and Design for Credit Card Launch | *Python, SQL, Statistics*

June 2024

- Executed comprehensive data import, cleaning, and validation for 1,000 customer profiles; visualized transaction histories to identify target age groups, enhancing marketing efforts and increasing customer engagement by 20%.
- Processed and visualized 500,000 transaction records to determine spending patterns across different demographics - students, working professionals, seniors.
- Analyzed daily transaction data from a sample of 40 customers in control and test groups, comparing existing and newly launched credit cards by using inferential statistics.
- Improved key performance indicator by 15% in test group, enhancing average transaction amounts by new credit card.

Structural Health Monitoring System using ML | *Machine Learning - Python*

May 2022

- Devised a novel technique named Pixel Intensity Measurement Rule (PIRM) for Crack Analysis and segregation.
- Formulated a Hybrid Model using CNN (Inception-Resnet-V2) and traditional ML achieving an accuracy of 99.8%.

Technical Skills

Languages: Python, R, Matlab, SQL, Javascript, Typescript, C, C++, Java, JSX

Libraries: Tableau, Kibana, Apache Kafka, Microsoft Power BI, Matplotlib, Numpy, Pandas, Seaborn, Scikit-learn, Tensorflow, OpenCV, dplyr, ggplot2

Concepts: Data Analysis, Data Mining, Data Engineering, Data Visualization, Data Augmentation, Machine Learning, Database Management System, MERN Stack Development, Version Control using Git, Time Series Forecasting, Predictive Modeling, Statistical Analysis, Hypothesis Testing

Certifications: NASSCOM Certified Associate Analytics (National Skills Framework Level 7), Excel Skills for Business (Macquarie University, Coursera), Google Data Analytics Specialization (Coursera)

Leadership

Viteach

May 2020 – June 2021

Department Head

Vellore Institute of Technology

- Led a team of 200+ club members in managing various initiatives, impacting 2000+ students from various schools.
- Leveraged data-driven techniques to analyze community needs, improving community engagement for teaching by 60%.
- Raised over 50000 INR in funding, optimizing resource(stationery, books, food etc.) allocation to various schools.