RAMAN SINGH

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EDUCATION:

Indiana University, Bloomington   Indiana, USA
Master of Science in Data Science   Aug 2021 – May 2023
- **Relevant Courses:** Advance Database Concept, Machine Learning for Signal Processing, Data Mining, Information Visualization, Statistical Computing, Reinforcement Learning

M.S. Ramaiah Institute of Technology   Bengaluru, India
Bachelor of Engineering   Aug 2012 – July 2016
- **Relevant Courses:** Artificial Intelligence, Mathematics I – IV, Statistical Quality Control

TECHNICAL SKILLS:

Programming Languages: Python, R, SQL, No SQL, C++, VB.Net, Visual Basic for Application (VBA), CAT Script, and VBScript
Python Libraries: TensorFlow, Keras, Librosa, Scikit-Learn, Seaborn, Pillow, OpenCV, Numpy, pytesseract, Dash, Flash, etc.
Statistics: Hypothesis Test, A/B Testing, T-Test, P-Test, Type I & Type II Errors, Bayes Theorem, Derivatives and Gradients, etc.
Visualization Tools: Tableau, Power BI, Python Plotly, PowerPoint, Gephi, Sci2
Miscellaneous: GitHub, HTML, CSS, UiPath (RPA), MS Office Automation (Excel, Word) and SharePoint Designer

PROFESSIONAL EXPERIENCE:

Faurecia India Private Limited, Pune, India   *Knowledge Based Engineer (KBE)*   Jul 2019 – Aug 2021
- Led the development, implementation & maintenance of 6 machine learning models with data pipelines and 4 Robotic Process Automation (RPA) solutions using UiPath software with total of 9400+ person-hours saving.
- Built and tested 13 automation solutions for design and manufacturing processes using .NET and C++.
- Collaborated with executive team and created multiple dashboards using SQL & Power BI to track project Key Performance Indicators (KPIs) e.g., Milestones, Task List, Resource Utilization, Quality Matrix, ROI.

Inteva Products, Bengaluru, India   *Knowledge Based Engineer (KBE)*   Aug 2016 – Jul 2019
- Compiled and analyzed quality reports for 8 cross-functional teams to build a monthly quality dashboard using Tableau and recommend probable improvement areas based on the previous experiences from managers.
- Executed 89+ global SharePoint revamps using Nintex user forms, Nintex workflows, HTML and CSS.
- Automated monthly dashboard for the Manufacturing Execution System (MES) report of 12 global manufacturing plants using SQL and Tableau yielded 87% time saving per month and provide insights from the report.
- Developed 20+ applications for efficiency improvement and standardization with monthly savings of 520 person-hours.

MAJOR PROJECTS:

Prediction of Judicial Decisions for Human Rights
- Programmed NLP based predictive model to successfully obtain the outcome of a court's case by comparing against several articles describing the rules of human rights and obtained 79% accuracy by implementing bag of N-grams to train Support Vector Machine (SVM) classifier with linear kernel, regularization parameter, 10-fold cross validation and grid search.
- Used Scikit-Learn, NumPy, Seaborn Python, NLTK libraries and GitHub.

B-Feature Identification
- Used 3D Deep Neural Network based PointNet++ on Point Cloud data structure and executed it using Pytorch with 88 % accuracy for 124 validated projects across 12 Original Equipment Manufacturers (OEMs) with different parts that improved data quality by 25% and saved 60% of manual work.
- Used Pytorch, Numpy, Math Python Libraries, SQL, GitHub.

Song Recommender System
- Developed real-time content-based recommendation system to populate 10 recommendations of the same language from 1550+ multilingual songs using algorithms such as KNN & CNN with Z-normalization based on metadata and 9 extracted features (e.g., MFCC, spectral centroid, tempo, beat) with a user interface.
- Used Keras, Librosa, Scikit-Learn, Numpy, Pandas, Pickle, Dash, and Flask Python Libraries, GitHub.

i-Benchmark Automation
- Implemented Convolutional Neural Network (CNN) with 92 % accuracy and shape search option on CAD design data of 89 validated projects from 8 OEMs with images that helped to improve part quality by 3.5% and saved 20% of rework on tooling cost during manufacturing process due to design optimization.
- Used Keras, OpenCV Python Libraries, SQL, GitHub.