Sushant Tiwari

Data Science Intern

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Highly analytical data science professional with strong problem-solving abilities and capacity to resolve intralogistic issues with advanced analytics and AI techniques. Ability to design and build simulation tools, statistical forecasting, and machine learning models. Excellent communication skills utilized in collaborating with both internal and external teams to identify and interpret business needs. Demonstrated leadership skills and highly capable of facilitating consistent dialogue to promote data-driven culture.

Education

Master of Science in Electrical Engineering: Big Data/ Machine Learning, GPA: 3.75
Columbia University, New York, NY
2022

Bachelor of Technology in Electronics Engineering, GPA: 3.91
Harcourt Butler Technological Institute, Kanpur, IN
2015

Certifications

Machine Learning and Data Science-Python & R | TensorFlow 2 and Keras Deep Learning, Control and Automation | Statistics for Data Science | National Science Olympiad (Level-2)

Projects

Presented an international research paper in IJARIIT on "high-resolution monitoring" to predict failure, eliminating inaccuracies linked with statistical calculations (IF: 6.07)

Deployed a deep learning image recognition model- MLP achieving > 90% accuracy & 2x faster convergence

Designed an optimum Credit Card Fraud detection model by leveraging ensemble anomaly detection techniques using K-Means, Local Outlier Factor and RF (96% AUROC, 448/492 Outliers)

Executed twitter Spark streaming analysis using Data Frame to categorize & analyze complex trends with MLlib

Awards

Young Scientist Award - NPCIL
Gold Medalist - NSO
Albert Rubenstein Memorial Scholar
Blue Blazer Academic Scholar

Skills

Python, C, R, SQL, MATLAB, C++, Git, OpenCV, GCP, AWS, Hadoop, Spark, Tableau, Scikit-learn, Jupyter, Excel, RStudio, TensorFlow, PyTorch, Databases, Decision Trees, Excel, Word, Data Analytics, Clustering, Forecasting, Statistical Modeling, Neural Networks

Work Experience

Nuclear Power Corp. of India Ltd. (NPCIL), Mumbai, IN 8/2019 - 6/2021
Scientific Officer-D

Utilized ML algorithms, mathematical/statistical modeling, software logic diagnostics and intelligent functional modules to investigate and build 4 automated safety systems designed to project failures within safety-critical environment.

- Directed team of scientists on $1.3M projects including "Dew Point Data Analytics for Predictive Catastrophic Failure Detection Utilizing Python & R" and "Predictive MCR Human Machine Interface Control".
- Contributed to $2M annual revenue by devising forecast strategies through supervised ML algorithms, digital IC design and incorporated logics utilizing Python for fault mitigation via Intelligent Modules (IM).
- Earned A1 Grade in recognition of success in "Technical Competency, Project Management, Leadership and Intellect".

Nuclear Power Corp. of India Ltd. (NPCIL), Mumbai, IN 8/2016 - 7/2019
Scientific Officer-C

Assimilated and applied Data Engineering, Hierarchical Clustering, Naïve Bayes Algorithm, KNN, Support Vector Machines, Neural Networks, Bayesian methods, decision trees/random forests, regression, PCA, and DBSCAN on 14 CBS projects.

- Navigated predictive algorithms, deep learning, and integrated delay-time sample equalization to evaluate system-failure data and conceptualize accident automation/control tactics, leading to $2M profit.
- Conducted diagnostic fail-safe safety assessment of I&C logics in I/O nodes and fault-simulation efficiency forecast of interacting boards and CPU modules in CBS using SQL, Python, and Scikit-Learn on $67K KAPP project.
- Received Team Break-Through Performance Award for Engineering Human Machine Interface (HMI) via interactive Mimics & SQL for advanced accident-annunciation management.

Additional Experience

Volunteer Lead, EHS Institute | Community Volunteer and Head, NGO Sanskar Bharti | Project Design Head, NPCIL Regulatory Committee | "Statcon-Energia Electronics" Member | All India Rank-1 at NPCIL Annual Research Training | All India Effervescence Event-Machine Learning & Robogames winner | HBTI Electronics Tech-Era Member