KUNDAN KUMAR

Detroit, MI, 48201 TX
kundan008@wayne.edu / +1 (313) -293-4324   LinkedIn Profile   GitHub

SUMMARY

Dynamic professional with expertise in Data Science, Machine Learning, and Deep Learning, skilled in statistical analysis and decision-making. Proven internships in Data Science, Data Analysis, Data Engineering, Machine Learning, and Software Development roles. Proficient in advanced computing platforms and statistical learning techniques for insightful data analysis. Experienced in data mining and simulation, adept at optimizing outcomes in complex scenarios. Strong team player with analytical prowess and a commitment to excellence. Seeking opportunities to apply skills and drive impactful solutions in a collaborative environment.

SKILLS

- Adaptability
- Collaboration
- Critical Thinking
- Creativity
- Time Management
- Attention to Detail
- Leadership
- Decision Analysis & Simulation
- Data Mining
- Data Visualization

- Python
- SQL
- Power BI
- Machine Learning Techniques
- Software Development
- Cloud Competencies (AWS, GCP)
- ETL Tools
- Data Science & Analytics
- Frameworks & Databases
- Version Control

EXPERIENCE

Research Assistant / Big Data Research Lab - Wayne State University, Detroit, MI   *09/2023 - Current*

- Spearheaded the development of a predictive maintenance model for sheet metal forming tools, utilizing statistical methods, machine learning, and finite element analysis to optimize production efficiency and minimize downtime.
- Implemented Socrata and ESRI ArcGIS on AWS, resulting in a 25% increase in operational efficiency. Proficiently applied algorithms and machine learning techniques for data-driven decision-making.
- Conducted statistical modeling, achieving a 25% enhancement in accuracy through the utilization of SAS, SPSS, and Python. Demonstrated expertise in ETL techniques and meticulous data management practices.
- Developed VBA macros for MS Access and Excel, streamlining reporting processes and facilitating data interpretation to bolster analysis efficiency.
- Exhibited entrepreneurial spirit and innovative use of Microsoft tools, working autonomously to drive research initiatives forward and contribute to project success.

Machine Learning Intern / Eve Healthcare Centers Private Limited - U.P, India   *06/2022 - 12/2022*

- Proven track record of efficient project management and collaboration, leveraging analytical skills to optimize data science projects.
- Led a successful pharmaceutical project, achieving 26 milestones in 7 months through the strategic application of biostatistics, machine learning, and epidemiology, resulting in a 100% satisfaction rate.
- Implemented a data-driven campaign strategy resulting in a 40% increase in click-through rates, utilizing SQL, SAS, and Python to drive impactful business outcomes.
- Demonstrated strong analytical skills in managing data for peak performance, emphasizing optimal data management routines and database maintenance.
- Proficient in utilizing innovative approaches and effective communication skills for business presentations, showcasing an entrepreneurial spirit in problem-solving.

Data Scientist / 5ONE Analytics - Haryana, India   *01/2021 - 05/2022*

- Leveraged visualization and machine learning techniques to develop impactful dashboards, resulting in a 20% increase in client conversion rates.
- Proficiently managed projects by utilizing SQL and Git for efficient report development and automation, showcasing strong project management skills.

- Demonstrated expertise in handling large datasets effectively and presenting findings through business presentations, highlighting advanced skills in data analytics.
- Utilized Python for extracting Google Analytics data and creating dynamic PowerBI dashboards, showcasing proficiency in data analysis and innovative presentation techniques.
- Applied machine learning, advanced data analytics, and visualization techniques in Python to effectively translate complex issues into actionable data science challenges, demonstrating strong analytical skills.

PROJECTS

Image Classification Pipeline
- Developed and executed a highly effective image classification pipeline utilizing EfficientNetB3 architecture, demonstrating proficiency in advanced neural network models.
- Leveraged transfer learning techniques, and fine-tuning layers, to achieve exceptional accuracy of 99% on a Kaggle dataset containing 525 bird species, showcasing expertise in complex classification tasks.
- Implemented robust methodologies for image preprocessing, model training, and evaluation, contributing to the development of a reliable and accurate bird species recognition system.

Optimizing Real Estate Valuation
- Leveraged advanced modeling techniques, including XGB Regression, to optimize real estate valuation, achieving an impressive R2 Score of 0.780957 and a low RMSE of 6.09142.
- Conducted comprehensive real estate analysis utilizing web-scraped data from Zillow, focusing on estimating cost per square foot for homes, and demonstrated strong data preprocessing skills to address outliers, check correlations, and transform transaction date information.
- Played a pivotal role in enhancing real estate valuation accuracy by identifying and implementing optimal modeling techniques, resulting in more informed decision-making processes within the industry.

Movie Recommendation System
- Spearheaded the development of a Movie Recommendation System utilizing collaborative filtering techniques, resulting in a notable 20% surge in user engagement.
- Enhanced recommendation accuracy by 15% through the integration of demographic filtering and content-based strategies within the Movie Recommendation System.
- Leveraged TMDB 5000 Movie Dataset to drive personalized recommendations, optimizing user experience and fostering increased user satisfaction.

Olympic Insights: Visualizing Athlete Demographics and Medal Tallies with Tableau
- Utilized Tableau to meticulously analyze Olympic data, crafting insightful visualizations that shed light on athlete demographics and medal distribution, facilitating a comprehensive understanding of participation and performance trends.
- Spearheaded the creation of dynamic visual representations in Tableau, effectively communicating complex Olympic data regarding athlete demographics and medal tallies, enabling stakeholders to make informed decisions and strategic planning.
- Demonstrated proficiency in Tableau to generate intuitive and interactive visualizations, offering valuable insights into the diversity of athletes and the distribution of medals across various demographic categories, optimizing data-driven decision-making processes.

Reinforcement Learning Exploration
- Implemented and compared state-of-the-art reinforcement learning algorithms (PPO, A2C, DQN) to solve the Cartpole balancing problem, showcasing expertise in algorithmic implementation and optimization.
- Surpassed the Cart-Pole challenge benchmark by achieving 195+ timesteps per episode in a Reinforcement Learning project, highlighting proficiency in mathematical modeling, quantitative analysis, and problem-solving in dynamic environments.
- Demonstrated mastery in exploring and applying reinforcement learning techniques to solve complex problems, showcasing a strong understanding of algorithmic principles and their practical applications.

Predictive Analysis and Dynamic Visualization of Chronic Disease Trends in the USA: A Flask-based Application on AWS
- Conducted comprehensive Exploratory Data Analysis (EDA) on complex chronic disease data, skillfully managing data cleaning and extraction processes to identify trends and insights.
- Developed and deployed a dynamic Flask-based application on AWS, integrating predictive models (Linear Regression, XGBOOST, Random Forest) to forecast alcohol use trends among youth, demonstrating expertise in analytics and impactful deployment for public health insights.

- Demonstrated proficiency in data analytics and deployment by leading the development and implementation of a predictive model-driven application on AWS, facilitating trend identification and insights into alcohol use among youth.

CERTIFICATIONS

- **Signal Image Processing and Machine Learning Trends** AICTE Academy, Nov 2021
- **Senior Mathematics Faculty,** Pinnacle Competitive Classes (Part-time), Jan 2021-Dec 2021
- **Founder & Director,** IIT SQUARE (Failed Startup), Aug 2017 – Dec 2020
- **Data Visualization with Tableau Specialization by** *University of California Davis, Courser 2023*
- **Volunteer Staff, Delhi Police Department**, *COVID Relief, Jan 2021*

EDUCATION

Master of Science: Data Science and Business Analytics   *Expected in 12/2024*
Wayne State University - Detroit, MI

Relevant Coursework
Data Science and analytics, Computing Platform for Data Science, Machine Learning Algorithms, Deep Learning, Statistical Learning for Data Science and analytics, Decision Analysis and simulation, and Data Mining

Bachelor of Technology (B.Tech.): Mechanical and Automation   *11/2020*
Guru Gobind Singh Indraprastha University - New Delhi