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Junaid-Ahmed-Rupok

Sarder Junaid Ahmed

Career Objective

Computer Science graduate with expertise in machine learning algorithms, advanced statistical testing, and data analysis. Proficient in implementing parametric/non-parametric tests, hypothesis testing, and ML model development. Seeking to contribute to AI/ML projects with strong technical skills in Python, statistical validation, and research methodology.

Technical Skills

Programming	Python, C/C++, SQL	ML Frameworks	Scikit-learn, TensorFlow, XGBoost
Mathematics	Calculus, Probability, Statistics	Python Libraries	Pandas, NumPy, SciPy, Matplotlib, Seaborn
Development Tools	Jupyter, PyCharm, Google Colab, Flask, Streamlit, Git	Other Libraries	easygui, os, cv2, joblib
Advanced Statistical Analysis	Mann-Whitney U, Kolmogorov-Smirnov, Shapiro-Wilk, Levene's Test	ML Algorithms	Classification, Regression, Ensemble Methods
Research Skills	Academic Writing, Hypothesis Testing	Model Development	Feature Engineering, Hyperparameter Tuning

Professional Skills

- Python Programming & Development
- Research & Academic Writing
- Statistical Analysis & Validation
- Team Collaboration & Communication

Machine Learning Projects

2025 **Human Development Index Prediction**, *Regression Analysis*, 85% Accuracy
- Created end-to-end ML pipeline for HDI prediction with Flask API deployment
- Achieved 15% improvement in prediction accuracy compared to baseline models
- Enables policy makers to forecast development outcomes for strategic planning
- GitHub: Click Here

2025 **Government Type Classification**, *ML Classification*, 84% Accuracy
- Developed comprehensive ML pipeline for government type prediction with Flask API
- Provides 12% higher accuracy in political regime classification than traditional methods
- Supports comparative governance research and political stability analysis
- GitHub: Click Here

2025 **COVID-19 Vaccine Prediction**, *Healthcare Analytics*
- Built predictive ML pipeline for vaccine distribution patterns with Flask API integration
- Improved vaccination planning efficiency by 20% through data-driven insights
- Assists public health authorities in optimizing vaccine allocation strategies
- GitHub: Click Here

Education

2019–2025 **Bachelor of Science in Computer Science and Engineering**, *Rajshahi University of Engineering and Technology (RUET)*, Rajshahi, Bangladesh

Research Publications

Under Review

SJ Ahmed. "Algorithmic Statistical Testing for Regime Comparison: Applications in Political Data Science." *Under Review* (2025).

- Developed statistical framework analyzing 35 governance indicators across 15,000 observations
- Applied Mann-Whitney U, Welch's t-test, Kolmogorov-Smirnov, Shapiro-Wilk, and Levene's tests
- Identified statistically significant changes in 9 parameters with 88.9% performance differential

SJ Ahmed, MHR Kwoshik. "Machine Learning Analysis of Political Regime Classification: A Comprehensive Comparative Study." *Under Review* (2025).

- Evaluated 5 ML algorithms achieving 94.27% accuracy with Lasso Logistic Regression
- Demonstrated 18% improvement in political regime prediction over conventional methods

Core Competencies

- Statistical Analysis
- Hypothesis Testing
- Python Programming
- Model Development
- Machine Learning
- Data Preprocessing
- Research Methodology
- Academic Writing

Languages

Bengali	Native	*Mother tongue*
English	Fluent	*Excellent technical and professional communication*