

Khandker Qaiduzzaman

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PROFESSIONAL SUMMARY: Experienced computer engineer with 6 years of expertise in data pre-processing, ETL, machine learning, statistical modeling, data visualization, and optimization. Proficient in Python, Java, R, SQL, EDI, ANSI X12 mapping, Tableau, Excel and various statistical packages

TECHNICAL SKILLS

DATA TOOLS & SOFTWARES | Jupyter Notebook • RStudio • Google Colab • IBM Watson Studio • MS Excel • Tableau Prep Builder • Tableau Desktop • IBM WDI • Postman • Liaison
PROGRAMMING LANGUAGES | Javascript • HTML • CSS • Python • R • Java • C/C++ • C# .Net • MVC • .Net Core • Matlab
DATABASE | SQL Server • Oracle • MySQL • SQLite • MS Access • PostgreSQL
OPERATING SYSTEM | Windows • Linux • Mac
MISCELLANEOUS | MS PowerPoint • Git • LaTeX • Adobe Photoshop

PROFESSIONAL EXPERIENCE

SPRING SYSTEMS

Data Mapping & Configuration Technician

Valley Stream, NY

November 2023 - Present

EDI DATA ANALYSIS

- Apply statistical methods to analyze and interpret EDI data, ensuring appropriateness of techniques
- Develop Python-based analytics algorithms and validation scripts to enhance EDI solutions
- Analyze high-volume data sets, identify trends, and assist in decision-making processes; coordinate data deployments and maintain databases, presenting findings to stakeholders effectively

DATA MAPPING

- Retrieve, transform and map inbound and outbound data by following ANSI X12 standard using IBM WebSphere Data Interchange and Postman
- Troubleshoot the EDI transaction maps
- Create new map for new vendors and retailers

EQUAL PUBLIC BENEFIT CORPORATION

Data Quality Control Specialist (*Part-time*)

San Francisco, CA

April 2023–November 2023

- Insertion and deletion of petition data into the database
- Checking for inconsistency, duplicates, and ambiguity in data
- Cleaning and managing the data in the database

DECATHLON LOGISTICS CENTER

Inventory Analyst

Dortmund, Germany

June 2020–December 2022

INVENTORY MANAGEMENT AND FORECASTING

- Pre-processed data and estimated future inventory using time series analysis and statistical modeling
- Developed a weather-inclusive model for water and winter sports teams, boosting accuracy by 5%
- Implemented automated technique for detecting inventory loss, recovering ~55K Euros/week

WORKLOAD PREDICTION AND PRODUCTIVITY MONITORING

- Built regression models predicting work hours from order data, cutting average workload by 140 hours/week

Monitored productivity, ensured timely fulfillment, and adjusted teams based on productivity and promise stats	
TRAINING AND REPORTING - Analyzed RFID scans, sent weekly reports, raising rates from 82.3% to 98.7% - Trained new employees on IT materials, inventory management tasks, and IBM AS400 software	
DAFFODIL INTERNATIONAL UNIVERSITY (DIU) Lecturer, Department of Software Engineering & Research Coordinator, Data Science Research Lab & Convener, Robotics Club	Dhaka, Bangladesh <i>September 2017–April 2020</i>
Instructed 1200+ engineering students, supervised theses, and taught various courses: Data Structures, Algorithms, OOP, AI, Computer Security, and Numerical Analysis Notable Research Projects:	
A COMPARATIVE ANALYSIS OF FOUR CLASSIFICATION ALGORITHMS FOR UNIVERSITY STUDENTS' PERFORMANCE DETECTION - Proposed a model to identify key factors affecting academic performance for Bangladeshi university students - Implemented feature selection (Correlation, Chi-Square, Euclidean) and compared classification algorithms (Decision Tree, Naive Bayes, K-NN, ANN) - Achieved 93.70% accuracy in student performance prediction using ANN, while Decision Tree's performance improved with more classes	
HYBRID FEATURE SELECTION METHOD FOR HEALTH DATA MINING - Proposed hybrid feature selection for ML classifiers (Gaussian, DT, RF, SVM) to boost accuracy - Implemented hybrid method combining filter and wrapper, achieving high accuracy with fewer features	
A MUTATION TRIGGERING METHOD FOR GENETIC ALGORITHM TO SOLVE TRAVELING SALESMAN PROBLEM - Proposed a Mutation Triggering Method for the genetic algorithm to solve the Traveling Salesman Problem - Combined three mutation operators, applied adaptive probability for improved travel cost and convergence	
WON GOLD AWARD AS SUPERVISOR IN I-ENVEX 2018, UNIVERSITI MALAYSIA PERLIS (UNIMAP), MALAYSIA Supervised and won gold award for "RoboArm: A Robotic Arm Targeting Industrial Revolution 4.0" project	
THE MILLENNIUM UNIVERSITY (TMU) Lecturer, Department of Computer Science and Engineering & Researcher, TMU Artificial Intelligence Lab	Dhaka, Bangladesh <i>July 2016–July 2017</i>
Taught 500+ engineering students, conducted AI and Data Science research, and instructed courses: Algorithms, Data Structures, OOP, Microprocessors and Microcontrollers, Assembly Language Notable Projects:	
EFFECTS OF HEURISTICS IN PATH PLANNING FOR MOBILE ROBOTS IN UNCERTAIN AND DYNAMIC ENVIRONMENTS - Proposed heuristics to assess their effects on mobile robot path planning in uncertain-dynamic environments - Implemented heuristics in various algorithms for robot pathfinding, with heuristic 4 satisfactory and A* performing best in travel-distance	
METEOROLOGICAL PREDICTION OF THE LARGEST MANGROVE FOREST IN THE WORLD, "SUNDARBAN" - Pre-processed meteorological data of Sundarban and separated the relevant features - Implemented Linear Regression, KNN, ANN, and RNN for forecasting, calculating model accuracy	
EDUCATION	
MASTER OF SCIENCE IN DATA SCIENCE (ONGOING) The City University of New York (School of Professional Studies), New York	Enrolment Year -2024
BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND ENGINEERING Khulna University, Bangladesh	Passing Year– 2015

CERTIFICATION

- [Google IT Automation with Python Professional Certificate, Coursera](#) (March 2022)
- [IBM Data Science Professional Certificate, Coursera](#) (January 2022)

PUBLICATIONS

2020

- **Qaiduzzaman KM**, Khatun S, Afsa M, Sobhan S, Hossain ME, Shaharum SM, Rahman M. A Mutation Triggering Method for Genetic Algorithm to Solve Traveling Salesman Problem. In Embracing Industry 4.0 2020 (pp. 159-170). Springer, Singapore.
- Hossain ME, **Qaiduzzaman KM**, Rahman M. Sightless Helper: An Interactive Mobile Application for Blind Assistance and Safe Navigation. In International Conference on Cyber Security and Computer Science 2020 Feb 15 (pp. 581-592). Springer, Cham.
- Rahman M, Sultana D, **Qaiduzzaman KM**, Hasan MH, Ahmad RB, Othaman RR. T-way Strategy for (Sequence Less Input Interaction) Test Case Generation Inspired by Fish Swarm Searching Algorithm. In International Conference on Cyber Security and Computer Science 2020 Feb 15 (pp. 155-166). Springer, Cham.
- Rahman AM, Sultana D, Khatun S, Jusof MF, Shaharum SM, Yusof NA, **Qaiduzzaman KM**, Hasan MH, Rahman MM, Hossen MA, Begum A. T-Way Strategy for Sequence Input Interaction Test Case Generation Adopting Fish Swarm.
- Rahman, M., Sultana, D., Khatun, S., Jusof, M.F.M., Shaharum, S.M., Yusof, N.A.T., **Qaiduzzaman, K.M.**, Hasan, M.H., Rahman, M.M., Hossen, M.A. and Begum, A., 2020, March. T-way Strategy for Sequence Input Interactions Test Case Generation Adopting Fish Swarm Algorithm. In In ECCE2019: Proceedings of the 5th International Conference on Electrical, Control & Computer Engineering, Kuantan, Pahang, Malaysia, 29th July 2019 (Vol. 632, p. 87). Springer Nature.
- Das D, Shakir AK, Rabbani M, Golam S, Rahman M, Shaharum SM, Khatun S, Fadilah NB, **Qaiduzzaman KM**, Islam M, Arman M. A comparative analysis of four classification algorithms for university students performance detection. In In ECCE2019 2020 (pp. 415-424). Springer, Singapore.

2019

- Hossain ME, Rahman M, **Qaiduzzaman KM**, Shakir AK, Hassan MM. Efficient Anti-Kidnapping and Anti-Harassment (Avoidance-Detection-Notification) Mobile Application for Unwanted Incidents. In 2019 IEEE Student Conference on Research and Development (SCORED) 2019 Oct 15 (pp. 112-116). IEEE.

2018

- **Qaiduzzaman KM**, Shahjahan M, Sobhan S, Arman MS, Taj MB. An effective attendance monitoring system with fraud prevention technique for educational institutions. International Journal of Engineering & Technology. 2018;7(3):1593-8.

2016

- Ripon KS, **Qaiduzzaman KM**, Islam MA. Effects of heuristics in path planning for mobile robots in uncertain and dynamic environments. In 2016 19th International Conference on Computer and Information Technology (ICCIT) 2016 Dec 18 (pp. 451-456). IEEE.