Mohammad Munem

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Christchurch, New Zealand

Personal Statement

As a current Master's student, I am cultivating a diverse skill set and a passion for continuous learning. My analytical abilities and collaborative nature make me a valuable team member. Keen to apply my growing expertise, I am dedicated to contributing meaningfully to our shared objectives and the advancement of our industry. Embracing challenges, I am committed to fostering progress through innovative solutions.

Education

University of Canterbury 2024 - present
Christchurch, New Zealand
Professional Master of Computer Science

Rajshahi University of Engineering & Technology 2017 – 2022
Rajshahi, Bangladesh
Bachelor of Science in Electrical & Computer Engineering

Professional Experience

Retail and Customer Service Assistant Jan 2023 – Feb 2024
Aarong, Bangladesh
Engaged with customers to assist in product selection and purchase, ensuring a high level of service and satisfaction. Maintained store aesthetics by organizing merchandise and creating visually appealing displays. Managed financial transactions with accuracy, including cash handling, issuing receipts, and processing refunds in line with company protocols.

Data Science and Quant Fellowship Nov 2023 – Feb 2024
Anchorblock Technology, Bangladesh
Utilized data science methodologies to analyze extensive datasets and model financial markets for strategic trading. Forecasted market trends and detected patterns to inform decisions, enhance profitability, and manage risks effectively.

Intern Associate Software Engineer May 2022 – Jun 2022
Selise Digital Platform, Bangladesh
Immersed in the software industry's diverse facets, gaining hands-on experience in full-stack website development and client services. Developed a comprehensive understanding of both front-end and back-end technologies through a month-long, intensive internship program.

Skills

Programming Languages: Python, C/C++, JavaScript, Typescript.
Libraries: NumPy, Pandas, Matplotlib, Scikit-learn, Tensorflow.
Word Processing Software: LaTex, MS Office.
Frameworks: MongoDB, ExpressJS, Angular, Node.js, Material-UI.
Developer Tools: Git, VS Code.

Projects Experience

- **Ensemble Strategy for Backtesting Stock Price (Anchorblock Technology, 2023)**
  Developed an ensemble strategy combining LSTM and Bollinger Bands, surpassing individual technical indicators and the S&P 500 benchmark, enhancing investment reliability.
- **Short Term Electric Load Forecasting Using an Optimized Hybrid Model of Xgboost and LGBM (Ongoing Publication, 2023)**
  Short term electric load will be predicted by utilizing XgBoost and LightGBM model, where the contribution of each model on the prediction will be defined by an optimizing function.
  Tools used: Python, NumPy, Pandas, Matplotlib, Scikit-learn, Tensorflow, LaTex.

- **A Shopping Web App Using MEAN Stack (Selise Digital Platform, 2022)**
  A Shopping Web App, utilizing MongoDB, Express, Angular, and Node, is developed to enable the seamless insertion, updating, deletion, and alteration of product data.
  Tools used: TypeScript, MongoDB, ExpressJS, Agular, Node.js, Material-UI

Publication

[1] Mohammad Munem, T. M. R. Bashar, M. Roni, M. Shahriar, T. B. Shawkat, and M. H. Rahaman, "Electric power load forecasting based on multivariate LSTM neural network using Bayesian optimization," in IEEE Electric Power and Energy Conference (EPEC), Edmonton, Canada, November 2020

[2] M. H. Rahaman, T. M. R. Bashar, Mohammad Munem, M. H. H. Hasib, H. Mahmud, and A. N. Alif, "Bayesian optimization based ANN model for short term wind speed forecasting in newfoundland, canada," in IEEE Electric Power and Energy Conference (EPEC), Edmonton, Canada, November 2020

Personal Skills

- **Communication Skills**
  As a Data Science and Quant Fellow, effectively communicating with team members to discuss strategy enhancements was integral to my role. I adeptly conveyed insights and proposed improvements, fostering collaboration and achieving superior outcomes.
- **Team management**
  In my role as Deputy Chief of Electrical Control Unit at Team Crack Platoon I was in charge of five team members building an electrical control system.
- **Self-Learning**
  In my role as Intern at Selise Digital Platform I build a MEAN Stack based Full stack website by using Google and YouTube

Conducted Training

- Introduction to Portfolio Construction and Analysis with Python, Coursera (2024)
- Introduction to Internet of Things, Stanford University (Online) (2020)
- Machine Learning, Stanford Online, Coursera (2020)
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization, Deeplearning.AI, Coursera (2020)
- Data Science Math Skills, Duke University, Coursera (2020)

Awards & Achievements

- **Technical Scholarship** from Rajshahi University of Engineering & Technology Based on Merit (RUET), Rajshahi. (2018, 2020-2022)
- **Excellent Research Award** from Department of ECE, RUET. (2022)
- **Excellent Performance Award** from Department of ECE, RUET. (2022)
- **Finalist in IEEE YESIST12,** Maker Fair 2020 as Team leader of Artio. (2020)
- **Participant in 2019 Formula Society of Automotive Engineers (FSAE) Japan** as an Electrical member of Team Crack Platoon. (2019)
- **Scholarship from The Government of India** for The Descendants of Freedom Fighter Based on Merit, India (2019)

Extra-Curricular Activities

- Deputy Chief of Electrical Control Unit at Team Crack Platoon. (2018 - 2023)
- Class Representative at Department of Electrical & Computer Engineering, RUET. (2019 - 2022)
- Content Writer at IEEE RUET Student Branch. (2018 - 2019)

Interests

- Football
- Cricket
- Science Fiction Books
- Movies

Referees

Available upon request