Urmi Sen

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urmisen.github.io/portfolio/

Education

Rajshahi University of Engineering & Technology (RUET) **2016 – 2022**
B.Sc. in Computer Science & Engineering *Rajshahi,Bangladesh*

Thesis

Convolutional Neural Network Based Approach for Prediction of Lysine Glutarylation Sites in Proteins.
Supervisors: Dr. Md. Al Mehedi Hasan & Dr. Md. Ali Hossain

Relevant Coursework

- Data Structures
- Software Methodology
- Algorithms Analysis
- Database Management
- Artificial Intelligence
- Computer Networks
- Systems Programming
- Computer Architecture
- Data Mining
- Neural Network and Fuzzy System

Standardized Test Scores

International English Language Testing System (IELTS) - 27th & 29th July, 2023

Overall Band Score	Listening	Reading	Writing	Speaking
7.0	8.5	7.0	6.5	6.5

Experience

EdTech Company (Shikho Technologies) **June 2022 – present**
Data Scientist I *Dhaka, Bangladesh*

- [Analytics & AI] Deep dive into data-driven insights and develop statistical models that can be used to make predictions or optimize business decisions.
- [Analytics & AI] Conducting cluster analysis on the user base and making the system operationally executable.
- [Data Engineering & Automation] Creating automated data engineering pipelines for extracting and storing various campaign data.
- [Automation] Employing Python combined with PostgreSQL and MySQL to automate a range of business tasks and modules.
- [Analytics] Developed social media(Facebook campaigns) analytics tool that can measure different perspectives of the audience towards a campaign which can improve brand quality.
- [Analytics] Developed a dashboard that provides insights about products and respective content performance based on different parameters. Enriched the project by using an optimized query language(PostgreSQL).
- [Analytics] Developed a sales and revenue tracking dashboard that shows various insights from data. Business stakeholders can observe daily, weekly, quarter, and monthly trends of sales and revenue and also can monitor the sales against the target which was created by using PostgreSQL.
- [Analytics] Integrating data from multiple sources into Tableau and using it to perform data analysis and develop data-driven visualization for business stakeholders.
- [Analytics] Producing informative reports with effective visualizations, deep dive into performance issues, and providing actionable insights.
- Assisting sales force to take the right steps from AI and BI-based analysis.
- Assisting business stakeholders to take decisions through insights from different business data.
- Maintaining and generating insights using Metabase along with Tableau.
- Performing data extraction, cleansing, and analysis from various database systems, including PostgreSQL and MySQL.

Machine Learning Research Group, RUET **August 2019 – April 2021**
Undergraduate Research Fellow *Rajshahi, Bangladesh*

- Acquired knowledge of the concepts and implementation requirements of both machine learning and deep learning techniques.
- Co−authored a research paper under the guidance of Dr. Md. Al Mehedi Hasan Sir, Professor at the Department of Computer Science & Engineering, Rajshahi University of Engineering & Technology. (Link)

Skills & Interets

Research Domains :	Data Science, Machine Learning, Deep Learning, Computer Vision, Bioinformatics.
Languages :	Python, C/C++,SQL, Postgresql, HTML, CSS, Tensorflow
Applications :	Jupyter Notebook, VS Code, Tableau, Metabase, Github, Google Docs, Drive, Sheets, Tableau, Metabase, MS Excel
Interpersonal Skills :	Leadership, Communication Skill, Teamwork, Management.
Languages :	English: Full professional proficiency Bengali: Full professional proficiency

Certifications

Data Analytics

- Exploratory Data Analysis in Python. (Link)
- Data Visualization with Python , IBM. (Link)

Machine Learning & Deep Learning

- Introduction to Machine Learning, Kaggle. (Link)
- Introduction to Natural Language Processing in Python, Datacamp.(Link)
- Neural Networks and Deep Learning, DEEPLEARNING.AI, Coursera. (Link)
- Hyperparameter tuning, Regularization, and Optimization, DEEPLEARNING.AI, Coursera. (Link)

Data Science Career Track

- Data Scientist with Python Track, Datacamp. (appearing)

Publications

DeepGlut: A Deep Learning Framework for Prediction of Glutarylation Sites in Proteins

Authers :	Urmi Sen , Md. Al Mehedi Hasan.
Status :	Available Online.
Conference :	IEEE Region 10 Symposium
Publisher :	IEEE.
Field :	Bioinformatics.
DOI :	10.1109/TENSYMP50017.2020.9230866.

Selected Projects Or Practices

Programming

- OOP & Data Structure. (Link)
- Basics of Python programming. (Link)
- Data manipulation and data visualization with Python. (Link)
- Sql practice from different online competitions and platforms such as Leetcode. (Link)

Lab Automation System

- It's a "Lab Automation" system with features like which lab has how many computers with the configuration of those computers and one can know which applications are installed on that computer by one click. (Link)

Student- Faculty Management System

- It's a system where a faculty member can manage students' profiles by adding, editing, and deleting data, can publish class test marks and results, etc and students can create and handle their accounts and get the notifications. (Link)

Exploratory Data Analysis & Model Implementation

- Extracted, cleaned, and analyzed different sorts of datasets and pre-process them to generate the final dataset.
- Machine Learning problems where exploratory data analysis along with predictive model implementation has been reflected here. (Link)

Machine Learning Implementations

- All my implemented Machine Learning projects. All implemented Machine Learning projects and learnings from different ML courses and blogs are reflected here. (Link)
- All my implementations from The Sparks Foundation task list with different Machine Learning Techniques. (Link)

Sequence data classification using CNN

- Built a CNN model to predict PTM sites in protein sequences using Keras. Further cross-validation was also held to evaluate the performance of the model. (Link)