Tanjima Nasreen Jenia

Edmonton, AB – Canada

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Education

University of Alberta   **Edmonton, AB, Canada**
Master of Science in Computing Science   *September 2022 - Current*
GPA: 4.00/4.00
Research Focus: Social Network Analysis, Information Retrieval, NLP
<u>Courses:</u>
○ CMPUT 501 - Intro to NLP
○ CMPUT 692 - Modern Database Searches and Techniques
○ CMPUT 606 - Optimization in Bioinformatics
○ CMPUT 697 - Introduction to KDD & DM

American International University-Bangladesh   **Dhaka, Bangladesh**
Bachelor of Science in Computer Science and Engineering *January 2016 - May 2019*
CGPA: 4.00/4.00
Class Position: 1st (*out of 450*)
Bachelor's Thesis: *"A Context-Based Searching Technique by Extraction and Fusion of Metadata of Digital Photos"*
Presentation
Supervisor: Dr. Khandaker Tabin Hasan, Professor, American International University-Bangladesh

Publications

[1]   Nafeez Zawad Hossain, **Tanjima Nasreen Jenia**, Md. Samshad Rahman, Sofen Hoque Anonta, and Khandaker Tabin Hasan. A context-based searching technique by extraction and fusion of metadata of digital photos. In *Proceedings of the International Conference on Computing Advancements*, ICCA 2020, New York, NY, USA, 2020. Association for Computing Machinery. Available here.

[2]   Md Hasibul Huq, Mohammed Alnakli, Zakiya Jafrin, and **Tanjima Nasreen Jenia**. Comparison of machine learning algorithms to recognize human activities from images and videos using pose estimation and feature extraction. In *Proceedings of the Future Technologies Conference (FTC) 2020, Volume 1*, pages 78–87, Cham, 2021. Springer International Publishing. Available here.

[3]   Md. Fazla Rabbi, Md. Saddam Hossain Mukta, **Tanjima Nasreen Jenia**, and A. K. M. Najmul Islam. Predicting fans' fifa world cup team preference from tweets. In *Cyber Security and Computer Science*, pages 280–292, Cham, 2020. Springer International Publishing. Avaibale here.

Awards & Scholarships

The DeepMind Scholarship   **2022**
The award is given for superior academic achievement with an area of research in AI/ML
University of Alberta

Summa Cum Laude   **2020**
The award is given for the highest academic excellence
19th Convocation, American International University-Bangladesh

Dean's List Honors   **2016 - 2017**
The award recognises outstanding academic performance
American International University-Bangladesh

Academic Scholarship   **2017 - 2019**
The scholarship is given based on academic result
American International University-Bangladesh

Bangladesh Government's Ministry of Education Scholarship   **2015**
The scholarship is given based on HSC result

Work Experience

Graduate Researcher   **May 2023 - Present**
University of Alberta   *Edmonton, AB, Canada*
Service Systems Research Group (SSRG)
- Upgrading a system architecture of a social data analysis platform, resulting in streamlined data workflows by utilizing Python libraries for data and software development
- Designing and developing a cross-platform mobile health & well-being application for an industry partner utilizing Flutter, Firebase, SQL, and NoSQL databases
- Utilizing diverse data mining and software development tools to analyze and prepare data and develop robust back-end systems for health analytics and machine learning platforms

Graduate Teaching Assistant   **September 2022 - Present**
University of Alberta   *Edmonton, AB, Canada*
Course: CMPUT 101 - Introduction to Computing
Role:
- Assist the students with their lab tasks
- Grade assignments and providing constructive feedback to students
- Perform other regular TA duties: attend TA meetings, proctor exams, and offer office hours

Data Engineer   **March 2022 - July 2022**
Leadbook   *Singapore*
Role:
- Designed and developed end-to-end data pipeline for 2 business critical projects
- Ingested data from numerous sources using different web scraping techniques utilizing SQL and NoSQL
- Analyzed and improved the quality of large volumes of complex data using Python libraries

Research Associate   **November 2019 - February 2022**
Socio Cognitive Lab   *Dhaka, Bangladesh*
Role:
- Identifed and formulated research scope
- Collected, organized, and analyzed the data from primary and secondary sources
- Designed, developed, and evaluated Machine Learning models

Teaching Assistant   **January 2019 - May 2019**
American International University - Bangladesh   *Dhaka, Bangladesh*
Role:
- Assisted the students in Tangible User Interface (TUI) project for Human-Computer Interaction (HCI) course
- Performed regular data entry tasks on students' evaluation grades
- Provided feedback and guidance to the students regarding their project submissions

Featured Projects

Covid-19 Mental Health Impact Analysis : Notebook | *Scikit-learn, Scipy, Seaborn, Plotly, Optuna*
- Implemented statistical and visual analysis for understanding the correlation between depression and various socio-economic factors
- Developed classification models to predict depression and tuned hyperparameters

Bangladeshi Restaurants' Analysis : Github | *GCP, Folium, Geopandas*

o Built a scraper using Google Places API to extract Restaurants' information from all over Bangladesh
o Created visualizations according to the Restaurants' ratings, reviews, and price levels

SpaceX Launch Prediction : Github | *SpaceX API, Seaborn, Plotly, Dash, Folium, Db2 (IBM Cloud)*

o Provided an extensive EDA of SpaceX Dataset utilizing various Python libraries and SQL
o Demonstrated predictive analysis on the outcome of rocket launch using various classification models

GSMArena Crawler : Github | *Beautiful Soup, Scrapy, Selenium, MongoDB*

o Developed three web crawlers that extract data from both gsmarena and its Bangladeshi version and stored into MongoDB

Visit Here For Full Project List

Extracurricular Activities

Publications Assistant   **2018 - 2019**
IEEE AIUB Student Branch
Role:

o Organize and host various seminars and events.
o Generate event reports.
o Prepare meeting minutes.

Additional Achievements

Conferences: Presented Paper, International Conference on Computing Advancements (ICCA - 2020)
Competitions:

o Position 8th, Ada Lovelace Datathon 2021
o "Youth Campaign for Earthquake Preparedness" by UNDP, Bangladesh

Workshops:

o "Web Design 101 and JS" by AIUB Computer Club
o "Self Defence for Women" by ESAB-AIUB Unit Face

Technical Skills

Programming Languages: Python, JavaScript, and C++
Data Science: Tensorflow, Keras, Scikit-learn, Pandas, Plotly, Dash, Seaborn
Database: MySQL, MongoDB, Oracle, PostgreSQL
Web Technologies: Django, HTML5, CSS, Jekyll
Software and Technologies: Git, IBM Watson
Additional Skills: Web-scraping (Scrapy, Selenium), App Development (Flutter), LaTex

Certifications

IBM Data Science Professional Certificate
View Credential

o Basics of Data Science
o Data Analysis and Visualization with Python and SQL
o Build, Evaluate Machine Learning Models and Pipelines