TAN JIAWEI, ERIC

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Availability for Work: Jun 2024

Education

Nanyang Technological University — Singapore
Bachelor of Engineering in Computer Science — *Aug. 2020 – Dec. 2023(Expected)*

Singapore Polytechnic — Singapore
Diploma in Biomedical Science, Diploma with Merit — *Apr. 2015 – Apr. 2018*

Experience

Infrastructure Intern — May. 2022 – Aug. 2022
DFS Venture (Pte) Limited — *Singapore*

- Spearheaded the cost analysis of every server application available in the inventory.
- Managed the cost analysis to ensure that the server application cost is reflective of its usage.
- Conducted data analysis on the Cloud Cost of migrated applications.
- Designed a newsletter to introduce cloud computing and list the benefits of it to the Technology Department.

Medical Technologist Intern — Sep. 2017 – Jan. 2018
Parkway Laboratory Pte Ltd — *Singapore*

- Conducted experiment closely with professional medical technologist. Handled specimens and provided aid for processing and analysis of patient's samples.
- Operated medical devices that can analyse the patient's sample. Performed sample preparation and analysis with confidence and minimal supervision.

Projects

Currency Prediction Analysis | *Machine Learning & Data Analysis* — Jan. 2023 – Jul. 2023

- Conducted meticulous data cleaning and comprehensive exploratory data analysis on a currency dataset.
- Executed advanced time series analysis techniques on the currency dataset, uncovering diverse possibilities for currency forecasts.
- Employed Scikit-Learn and other essential packages to develop currency prediction models, including Decision Trees, Random Forests, ADAboost, XGBoost, and Neural Networks.

Twitter Tweets Analysis | *Natural Language Processing & Data Analysis* — Jan. 2023 – May. 2023

- Skilfully performed data cleansing, encompassing stop words removal and stemming, followed by an insightful exploratory data analysis of both web-crawled and available tweet datasets.
- Applied the Textblob package to accomplish sentiment and subjectivity analyses of the tweets.
- Utilized Scikit-Learn and other relevant packages to construct predictive models, encompassing Decision Trees, Random Forests, Support Vector Machines, and Neural Networks for sentiment and subjectivity prediction.
- Machine learning model achieved an impressive accuracy rate of up to 87.05% in detecting both subjectivity and polarity

Data Center Environment Data Processing (Final Year Project) | *Data Analytics* — Jan. 2023 – Present

- Skilfully performed data cleansing, encompassing stop words removal and stemming, followed by an insightful exploratory data analysis of both web-crawled and available tweet datasets.
- Applied the Textblob package to accomplish sentiment and subjectivity analyses of the tweets.
- Utilized Scikit-Learn and other relevant packages to construct predictive models, encompassing Decision Trees, Random Forests, Support Vector Machines, and Neural Networks for sentiment and subjectivity prediction.

Data Center Environment Data Processing (Final Year Project) | *Data Analytics* — Jan. 2023 – Present

- Demonstrated proficiency in data cleaning and comprehensive exploratory data analysis on a specific dataset pertaining to the data center environment.
- Orchestrated feature extraction and selection methodologies to facilitate precise energy prediction.

- Employed a suite of tools including Scikit-Learn, XGBoost, and TensorFlow packages to craft an array of prediction models encompassing Linear Regression, Decision Trees, Random Forests, ADAboost, XGBoost, and Neural Networks for accurate energy prediction.
- Models achieved a R2 value of up to 99% and MSE of 333 in predicting total energy consumption.

Movie Recommender System | *Recommendation Systems* Aug. 2022 – Dec. 2022

- Demonstrated proficiency in data cleaning and comprehensive exploratory data analysis on a specific dataset pertaining to the data center environment.
- Orchestrated feature extraction and selection methodologies to facilitate precise energy prediction.
- Employed a suite of tools including Scikit-Learn, XGBoost, and TensorFlow packages to craft an array of prediction models encompassing Linear Regression, Decision Trees, Random Forests, ADAboost, XGBoost, and Neural Networks for accurate energy prediction.

Co-curricular Activities

Member Aug. 2022 – Present

Nanyang Technological University Operation Hope *Singapore*

- Volunteer weekly with PlayBuddy, an Organisation that introduce variety of sports for kids with disabilities.
- Conducted a Mini Carnival Game for the children to have fun and learn through sports.

Logistics & Publicity Officer Aug. 2021 – Aug. 2022

Nanyang Technological University Fencing Club *Singapore*

- Conducted training diligently every week to prepare for Novices competition.
- Responsible for handling of club's social media pages and art designs.
- Responsible for handling the club's logistics and equipment.
- Participated in Novices 2022 and achieved Top 8 position.
- Participated in SMU Asian Varsity Fencing Championship (AVFC).
- Planned for the publicity and publications of NTU's very first fencing competition, NTUINVITES 2022.

Main Committee Member Aug. 2020 – Aug. 2022

Nanyang Technological University Deaf Community *Singapore*

- Planned experiential activities for NTU student and people of the Deaf community to encourage interaction and knowledge of Deaf culture.
- Provided weekly one to one tuition under Regular Service Project Deaf Community for students in Deaf Community.
- Managing and planning tuition services to the Deaf Community on a weekly basis.
- Planned and head events for Junior and Senior volunteers in Regular Service Project Deaf Community.

Technical Skills

Languages: Python, Java, SQL, HTML/CSS
Developer Tools: Git, VS Code, Visual Studio, Microsoft Office, Microsoft Excel
Data Skills: Data Cleaning, Data Analysis, Data Visualisation, Machine Learning (Regression, Decision Trees, Random Forest, ADABoost, XGboost, Neural Network – TensorFlow), Analytical, Problem Solving.
Packages: Scikit-learn, Pandas, Seaborn, TensorFlow Keras

Hobbies

Activities: Hiking, Cycling, Fencing, Computer Games