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GitHub: **https://github.com/ABHISHEK03312**

Portfolio: **https://abhishek03312.github.io**

Graduating: May 2023

EDUCATION

Nanyang Technological University, Singapore   **Aug 2019 – Jun 2023**
Bachelor of science in Data science and Artificial Intelligence

- Dean's List AY-2019/20(top 5% in the cohort)
- Current CGPA: 4.31/5.00
- Relevant modules: Neural Networks and Deep Learning, Database System Principles, Software Engineering, Statistics, Data Analysis with computer, Developing Data Products, Data Visualization, Scientific Communication II.

EXPERIENCE

Keppel Corporation Limited   **Jan 2022 – Jun 2022**
Analytics and Automation Intern (Group Internal Audit)

- Liaised with auditors to develop and manage big data pipelines to extract, transform and load financial transactions data.
- Spearheaded projects in different areas, processing unstructured data for projects involving graphical analysis and risk analytics.
- Worked in an agile work environment and collaborated with stakeholders from different business units to deliver solutions based on the requirements.
- Reduced processing time by almost 1/4th of original time taken and deployed the relevant processes for continuous assessment using dynamic PowerBI dashboards.
- Platforms and tools – Databricks, Python, PySpark, CosmosDB, Gremlin API, BERT, pdfplumber, PowerBI

Ubisoft   **Jul 2021 – Sep 2021**
Software Engineer (Machine Learning) Intern (Part-time)

- Developed a web application to extract video game end credits from game videos.
- Extracted text using computer vision and optical character recognition. Implemented k-means clustering to map respective job titles with the names of people.
- Designed an interactive user-interface according to the needs of the internal stakeholder, the HR department.
- Platforms and Tools – ReactJS, Flask, MongoDB, OpenCV, easyOCR

A*STAR   **May 2021 – Jul 2021**
Research Engineer

- Ascertained novel ways of pruning neural networks to make it more compact.
- Conducted research experiments on CIFAR10 and ImageNet datasets to validate new pruning rules.
- Developed and analyzed existing algorithms to push state-of-the-art further for sparsity and accuracy achieved after pruning.
- Plausible applications in enhanced processing for various machine learning applications.
- Platforms and Tools – Pytorch, docker

NTUitive   **Jan 2020 – Mar 2020**
Machine Learning Engineer

- Worked with a startup to develop a social media platform for knowledge sharing.
- Developed core recommendation system algorithms focusing on NLP.
- Analyzed and train ML models to improve performance.
- Performed data processing, topic modelling, hybrid recommendation system

ACADEMIC PROJECT

Nanyang Technological University, Singapore
Speech Recognition system – Neural Networks and Deep Learning   **Oct 2021 – Nov 2021**

- Proposed a pipeline using existing architectures to perform speech emotion recognition for individual speakers.
- Performed audio segmentation and trained a supervised learning model following the Siamese architecture to identify and differentiate between different speakers.
- Performed Data engineering to extract 175 features and train a speech emotion recognition (SER) model on the RAVDESS dataset.

- Enhanced model performance using repeated and accurate model validation.
- Platforms and Tools – Keras, TensorFlow

Nanyang Technological University, Singapore

JobsUpply – Software Engineering   **Feb 2020 – Apr 2020**
- Developed a robust application to help job seekers be more well equipped and relevant for the industry.
- The application recommends jobs and courses based on the industry and skills matched, user profile, vacancies, and the number of job seekers.
- Built a robust app to mimic real world applications including login, create and update user profiles and secure methods to change passwords.
- Platforms and Tools– React JS, Mongo DB, Django, Software development practices

MyStars – Course Registration system   **Sep 2020 – Nov 2020**
- Built a console version for the course registration system coded in Java
- Implemented various object-oriented programming methods like inheritance and object composition to build a robust console-based version.
- The registration system allows student and admin login with each user having a unique set of functions.
- Implemented the console version based on the SOLID design principles.

MusicMoods – Song recommendation system   **Mar 2020 – Apr 2020**
- Developed a song recommendation system using sentiment scores of the songs.
- Generates a playlist of 30 songs using Euclidian and cosine similarity techniques to generate the playlist using sentiment scores.
- Applications allows user preference to select artist diversity as well as genre of the song to generate the playlist.
- Tools – NLTK Vader, Text Blob

Spam Filter   **Feb 2020 – Mar 2020**
- Developed a spam filter using Natural language processing techniques to classify text messages as spam or legitimate message
- Used predictors such as commonly occurring words in legitimate and spam messages as well as length of the text messages to classify the messages.
- Engineered custom features from unstructured textual data for processing.
- Tools - pandas, NumPy, scikit-learn, decision trees

CO-CURRICULAR ACTIVITIES

IEEE   **Jun 2020 – Jun 2022**
Logistics Director
- Managed a team of 6 to organize multiple tech workshops in collaboration with different student clubs in NTU.
- Organized a virtual hackathon with over 700 participants across SEA, sponsored by top companies.
- Liaised with different vendors to procure and deliver participant swags and prizes

Runner's Club   **Jun 2021 – Jun 2022**
Assistant Projects Manager
- Collaborated with mental health organization to host running events to raise funds.
- Spearheaded multiple in campus events for students in NTU to promote and encourage active lifestyle.

SKILLS

Languages: Proficient in English and Hindi, conversant in Tamil, Spanish(L1)
Programming: Python, MySQL, Java, JavaScript, C, C++, Gremlin, R
Applications and Frameworks: Django, React, OpenCV, PySpark
Platforms: Databricks, CosmosDB, Azure Data Lake, PowerBI
Analytics: Statistics, Data Analysis, Data Visualization,
Other Skills: Machine learning, Neural networks, Sentiment Analysis, PCA
Business/Domain Knowledge:
- Developed greater understanding of business use cases and financial processes.
- Cross-team collaboration to meet the end user requirements.