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Graduating: Jun 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: 4.40/5.00
- Relevant modules: Neural Networks and Deep Learning, Database System Principles, Software Engineering, Statistics, Data Analysis with computer, Artificial Intelligence, 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 using necessary ETL procedures and deployed the relevant processes for continuous assessment using dynamic PowerBI dashboards.
- Spearheaded projects in different areas such as using graphical analysis to determine underlying relationships between Chinese companies and analyzing risk faced by the organization due to the sanctions imposed.
- Improved efficiency by reducing time taken to process by almost $1/4^{th}$ of original time taken.
- Platforms and tools – Databricks, Spark, CosmosDB, Gremlin API, BERT, pdfplumber, Camelot, PowerBI

Ubisoft **Jul 2021 – Sep 2021**

Software Engineer (Machine Learning) Intern (Part-time)

- Developed a web application to extract game credits from videos.
- Extracted text using OpenCV and optical character recognition, easyOCR. Implemented k-means clustering to map respective job titles with the names of people.
- Currently designing an interactive user-interface using ReactJS to upload videos and extract game credits.
- Frontend Framework – ReactJS, Backend Framework – Flask, Database – MongoDB.

A*STAR **May 2021 – Jul 2021**

Research Engineer

- Ascertained novel ways of pruning neural networks to make it more compact.
- Analyzed pruning rules such as global pruning to achieve state-of-the-art performance.
- 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.

NTUitive **Jan 2020 – Mar 2020**

Machine Learning Engineer

- Worked with a startup to develop a social knowledge platform.
- 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.
- Engineered 175 features to train a speech emotion recognition (SER) model on the RAVDESS dataset.
- Enhanced model performance using repeated and accurate model validation.

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.

- Tools and Skills – 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 to classify text messages as spam or legitimate message.
- Applied Natural language processing to remove stopwords and punctuation.
- Used predictors such as commonly occurring words in legitimate and spam messages as well as length of the text messages to classify the messages.
- Tools - pandas, NumPy, scikit-learn, decision trees

CO-CURRICULAR ACTIVITIES

IEEE

Logistics Director

- Collaborated and organized workshops and hackathons with more than 500 participants.

Runner's club

Assistant Projects Manager

- Collaborated and organized workshops and events.

SKILLS

Languages: Proficient in English and Hindi, conversant in Tamil

Tech Skills:

- Python, PySpark, Graphical Analysis Gremlin, C, C++, Java, MySQL, R, Django, React, HTML, CSS
- Machine learning, Neural networks, Sentiment Analysis, PCA, Speech Emotion Recognition
- Data analysis, Data visualization, Big Data, Statistics, OpenCV
- Databricks, Cosmos DB, Azure delta lake, PowerBI

Business/Domain Knowledge:

- Developed greater understanding of business use case and financial processes.
- Cross-team collaboration to meet the end user requirements.