ISARAPON PRASERTSTID

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Research Interests

- Natural Language Processing, Natural Language Understanding
- Machine Learning
- Applications in Text Analytics
- Large Language Models

Education

• University of Bristol (Bristol, United Kingdom)

MSc. Data Science   **2023 – 2024**

Course Highlight: Software Development: Programming and Algorithms – 74%, Large-Scale Data Engineering – 79%,

Data Science Mini-Project – 77%, Visual Analytics – 76%, Introduction to AI and Text Analytics – 85%,

Dissertation: Data Science Project – 73%,

Highlight

1. **Dissertation (Automatic Prompt Pattern Generation Using Unsupervised Learning Techniques for Enhancing Pattern Exploiting Training (PET) Performance)**
   - Developed a method using unsupervised learning (K-means Clustering, LDA, Hierarchical Clustering) for automatic prompt generation in few-shot text classification, improving accuracy comparable to human-designed patterns.

2. **Text Analytics**
   - Applied Logistic Regression and BERT/TinyBERT models for emotion classification.
   - Preprocessing included text cleaning, TF-IDF vectorisation, and feature engineering (n-grams, lexicon features)
   - Utilised Conditional Random Fields (CRFs) with features like POS tags, dependency parsing, and WordNet.
   - Used cosine similarity to compare disease-related documents, showing strong results in identifying related diseases.

3. **Cloud Computing Project (AWS)**
   - Implemented auto-scaling policies, improved security, and enhanced system resilience and availability using AWS technologies.

4. **Data Analytics with NASA API (EONET)**
   - Extract data from an API, perform an EDA process, and analyse insights about disaster events on Earth, including predicting future disasters.

5. **Object-Oriented Programming (CoffeeShop Program)**
   - Used an object-oriented programming approach to create multiple classes to enhance code maintainability, employ the principle of encapsulation.
   - Utilised the inheritance principle, allowing the child class to leverage the capabilities of the parent class.

6. **Introduction to AI with Penguin Dataset**
   - Applied EDA, feature engineering, dimensional reduction (PCA), supervised learning (KNN and Random Forest), and unsupervised learning (Gaussian mixture model) for data clustering.

7. **Lloyds Banking Group, (University of Bristol Project Partnership)**
   - Analysed transactional data from a leading UK financial services company, applying machine learning techniques to derive insights on customer behaviour and fraud detection.
   - Conducted thorough Exploratory Data Analysis using many types of graph and time series analysis to investigate spending trends, seasonal variations, and transaction anomalies.
   - Implemented advanced unsupervised learning models (One-Class SVM) for fraud detection, optimising model performance and finding suitable condition for detecting fraudulent activities.
   - Implemented advanced unsupervised learning models, such as DBSCAN and HDBSCAN, for customer segmentation, optimising model performance to analyse spending behaviour and provide personalised product recommendations for each group of customers.

8. **Visual Analytics with Tableau with the topic of how socio-economic and demographic factors impact employment in England and Wales**

   - Developed interactive dashboards to analyse how socio-economic and demographic factors impact employment across England and Wales.

   - Utilised Munzner's design principles to improve information accessibility and user engagement.

- **Kasetsart University (Bangkok, Thailand)**

B.Eng. (Chemical Engineering)   **2017 – 2021**

GPA: 3.25 (second-class honours)

Course Highlight: Computers & Programming – A, Engineering Mathematics III – A, Chemical Engineering Economics and Cost Estimation – A,

Skills and Abilities	Soft Skills
- Microsoft office (Excel, Word, Power point)	- Can-do Attitude
- Tableau	- Communication skills: Friendly, can interact easily with others and good at icebreaking
- Python (Scikit-learn, BERT, Transformer, etc.)	
- Google Data Studio	- Critical Thinking & Problem-Solving
- Amazon AWS	- Time management
- SQL	

Working Experience

- The Provincial Electricity Authority, **Business Analyst**   December 2022 - August 2023
  - Coding and maintaining backend systems by using Django and JavaScript, focusing on database management and data retrieval for website presentation.
  - Collaborating with stakeholders to collect user requirements for the Budget system.
  - Planning the business flow to ensure seamless functionality.
  - Designing the UX-UI for an optimal user experience in the Budget system.

- Siam Makro Public Company Limited**, Management Trainee (6-months program)**   April 2022 - October 2022
  - Find effective way to display and arrange products within the store for optimal presentation.
  - Managing data by using the Oracle Business Intelligent tool, calculating profit&loss to analyse, and find strategies to improve the business.
  - Building a weekly sales dashboard
  - Developing customers by finding the pain points and fixing to increase sales.
  - Predicting sales and opportunity costs related to the delivery of products.
  - Engaging in market research to find market size and the company's market share.

- PTTLNG Company Limited, **Process Engineer (internship)**   May 2021 - June 2021
  - Improve the Boil-Off Gas management system in order to increase the profits of the company.

Certificate

- AWS Academy Graduate - AWS Academy Cloud Foundations	Nov. 2023
- Intermediate SQL Queries	Sep. 2022
- Certified Professional Data Analyst	Jul. 2022
- Intermediate Python	Mar. 2022
- SQL for Data Science	Dec. 2021
- Foundations: Data, Data, Everywhere	Sep. 2021

Extracurricular Activities

- Won first place in a data analysis competition organised by Botnoi Group Thailand, addressing urban challenges in Bangkok (Jul 2022).
- Won first place in a chatbot development competition organised by Botnoi Group Thailand (Aug 2022)