# AZNOR YUSOF

aznor1990@gmail.com • +65 9272 9464

github.com/Aznoryusof • linkedin.com/in/aznor-yusof

## EDUCATION

**SINGAPORE MANAGEMENT UNIVERSITY**                                                          **Jan 2021 - Apr 2022**
**Master of IT in Business (Artificial Intelligence)**
Cumulative GPA: 3.64/4.0 | Award: Magna Cum Laude (High Distinction)

**SINGAPORE MANAGEMENT UNIVERSITY**                                                          **Aug 2011 - Apr 2015**
**Bachelor of Social Sciences (Political Science and Economics)**

## EXPERIENCE

**NCS Pte Ltd**                                                                              **May 2022 - Jul 2023**
**Data Scientist**
1) Researched, designed and developed AI models for use-cases in Natural Language Processing (NLP), Document Understanding and Machine Learning for pilot studies to demonstrate the value of AI to prospective clients:
   - Cleaned and pre-processed tabular and text data using Pandas and Spacy; experimented with different machine learning algorithms using sklearn and Tensorflow; developed a CNN model trained on a small dataset (n < 200) that predicts labels with > 80% accuracy and highlights important words used for prediction.
   - Developed NLP approach to cluster similar documents based on semantic similarity using word embeddings and the overlap of words, enabling CRM system to quickly identify previously reported cases.
   - Built and deployed a prototype NLP API that carried out Abstractive Dialogue Summarisation based on state-of-the-art Transformer models using Hugging Face and PyTorch, allowing users of call center systems to quickly understand the context of cases.
   - Developed a working demo of an end-to-end OCR solution using PyTorch and AWS (i.e. Amazon Sagemaker, SageMaker Endpoints and Amazon S3) that automates the extraction of data from physical forms, potentially reducing cost for the customer.
2) Built an automated machine learning functionality in Python for an AI platform that automatically cleans and pre-processes tabular data, conducts hyper-parameter tuning to find the best performing model and provides error analysis of the model for regression or classification tasks.
3) Architected solution that modernizes the data engineering and analytics platform of a large public education institution by migrating legacy on-premise systems to Azure services such as Azure Data Factory, Azure SQL Managed Instance, Azure DevOps, Databricks, Azure Data Lake Storage and Power BI.

**99 Group**                                                                                 **Aug 2021 - Feb 2022**
**Data Engineer (Intern)**
- Enhanced in-house data engineering platform for developers to implement data engineering pipelines using containerisation of code with docker, Airflow and Google Kubernetes Engine, allowing developers to independently build ETL pipelines using tools that the developers are familiar with.
- Sourced and extracted new data from public APIs and the web using data crawlers built in Python that was used as the source of information for a new geolocation feature in a property search application.
- Worked with various teams to develop and deploy data engineering pipelines in production using Git, SQL, Python, Airflow and cloud services.

**Singapore Tourism Board**                                                                  **Jun 2020 - May 2021**
**Data Scientist**
Gathered business user requirements across different line units within the agency and led the exploration and implementation of the following data science projects:
- Developed text analytics reporting service on CRM text data using topic modelling, trends analysis and dashboards.
- Developed and deployed fraud detection model using Word2Vec algorithm, hierarchical clustering and statistical methods on text and transaction data.
- Developed and deployed ETL pipelines for financial reconciliation and analytics dashboard for a multi-million-dollar digital voucher scheme, saving time and improving accuracy for finance ops.

**AI Singapore**                                                                          **Sep 2019 - May 2020**

**AI Associate Engineer (Apprentice)**

- Experimented with various recommendation system models, including Collaborative Filtering with PySpark, and evaluated the quality of model performance using qualitative and quantitative approaches (e.g. MAP and NDCG).
- Transformed sales data, performed feature engineering and deployed hybrid product recommendation engine for identifying personalised products using weighted matrix factorization and TF-IDF, maximising revenue for a multi-national corporation in the FMCG space.
- Acquired knowledge and skills in machine learning, deep learning, software development and experimented with newly released machine learning algorithms to solve real-world AI problems.

**Ministry of Manpower**                                                                   **Aug 2017 - Aug 2019**

**Senior Manager**

- Led data-driven policy reviews and developed data analytics capabilities of the division by building datasets and data reporting pipelines to monitor KPIs and review policies.
- Studied factors associated with the length of employments and the role of intermediaries in the matching process. Identified key intervention areas using insights from qualitative interviews, and quantitative methods, including segmentation analysis and predictive modelling. Findings led to new regulations and programmes to support lasting employments.
- Reviewed policies on health insurance, agency recruitment fees and living arrangements of Migrant Domestic Workers (MDWs) to identify gaps and worked with different stakeholders (including NGOs, employers and other Government Agencies) to drive policy change and improve the well-being of MDWs in Singapore.

**Blackbox Research Pte Ltd**                                                              **Feb 2015 - Mar 2017**

**Senior Research Analyst**

- Delivered insights that helped companies and Government organisations better understand attitudes and perceptions of their customers and citizens through marketing and social research studies.
- Formulated survey approach in marketing and social research, moderated focus groups and delivered evidence-backed analysis to help companies and public sector departments better understand attitudes and perceptions of stakeholders.

## COMMUNITY SERVICE

- Food Distribution volunteer (Red Cross); Project Homeworks volunteer (Habitat for Humanity); Camp Facilitator (CARE March Camp), Research Intern (Janaagraha Centre for Citizenship and Democracy in Bangalore, India).

## PROFICIENCIES AND CERTIFICATIONS

- Microsoft Certified Azure Data Engineer Associate, AI Certified Engineer Level I (AI Singapore), Advanced Certificate in Market and Social Research Practice (Market Research Society).
- Skills: R, Python, Pytorch, Tensorflow, SQL, Git, Tableau, PowerBI, Azure, AWS, GCS, Docker, Kubernetes and Airflow.