Ahmad Aiman Bin Shahrir
Aiman Shahrir

Artificial Intelligence (A.I) Engineer

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ABOUT

I am a passionate Artificial Intelligence (AI) Engineer, have a strong technical foundation in data science and new technology through hands-on experience and projects.

I am well-equipped in programming with relational databases and Python and has applied my expertise in data preparation, analysis, and visualization to uncover insights from complex datasets. I am proficient in both supervised and unsupervised machine learning algorithms along with deep learning techniques.

I am eager to use my skills to drive innovative AI solutions that improve decision-making and business outcomes for a forward-thinking company and committed to leveraging my skills to drive data-driven strategies, streamline processes, and develop impactful AI applications that meet the evolving needs of the industry.

TECHNICAL SKILL(S)

- Python
- C/C++
- Kafka
- Microsoft Azure
- Docker
- MySQL, PostgreSQL

- Large Language Model (LLM)
- Retrieval Augmented Generation (RAG)
- Tensorflow
- Keras
- Numpy
- Matplotlib

- Linux
- Exploratory Data Analysis (EDA)
- Natural Language Processing (NLP)
- Prompt Engineering
- Vector Database: Pinecone, ChromaDB, Qdrant
- Scikit-learn

PROFESSIONAL EXPERIENCE(S)

Apr. 2024 – Oct. 2024

Artificial Intelligence (A.I) Engineer

Userdata Sdn Bhd | Kuala Lumpur

- **Vector Database Development:** Developed a program that utilizes open-source vector database for various company usecase in collaboration with other AI engineers.
- **Tools: ChromaDB, Linux VM**
- **Model Deployment:** Researched, deployed and fine-tuned new open-source embedding models on Linux Virtual Machine (VM) for company usecase and increases general document retrieval accuracy up to 90%.
- **Tools: Huggingface, Linux VM**
- **Prompt Engineering:** Created prompts for specific domain understanding by utilizing Chain-of-Thoughts (CoT), Chain-of-Validators (CoV) and step-by-step technique to reduce hallucinations, resulting in a more accurate business description.

- **Autonomous Data Asset Project:**
  - Streamlined a data pipeline from different relational databases through Kafka, for data-preprocessing, which results in reduces crash issues and datatype mismatch.

  - Built a data-to-insight pipeline in which, utilizes client's metadata to generate business domain descriptions using on-premise large language model (LLM) and stored into vector database, ChromaDB.

  - Built an intent-to-SQL pipeline in which, utilizes on-premise LLM to generate relevant queries for data visualization.

  - Deployed a vector database to store documents (i.e business descriptions) and utilizes RAG to match user intent with the documents.
  - **Tools: LLM, Linux VM, MySQL, PostgreSQL, Kafka, ChromaDB**

	• **Clustering Project:**
	○ Applied Principal Component Analysis (PCA) and k-Means clustering to segment customers based on their spending behavior, enabling targeted cross-selling of products aligned with customer profiles. ○ **Tools: MySQL, Plotly, Matplotlib, Scikit-learn**
Oct. 2023 – Jan. 2024	**Junior Data Analyst** *Talentlabs | Kuala Lumpur, Malaysia* • Extensive hands-on experience in artificial intelligence (AI), data analytics, and data science. • Developed skills in data preparation, manipulation, analysis, and visualization, with a proven ability to extract valuable insights from complex datasets. • Developed projects using supervised and unsupervised machine learning algorithms, including k-means, kNN, Decision Tree, Random Forest, and PCA. • Applied deep learning techniques, such as CNN and RNN, to tackle projects involving time-series data and computer vision.
Jun. 2022 – Sep. 2022	**Design & Costing Engineer | Intern** *Tera VA Sdn. Bhd. | Putrajaya, Malaysia* • Designed a calculation sheet for engineers to determine the size of cables and cable trunking based on their engineering properties using Microsoft Excel. • **Project(s)**: ○ Managed to be a part of a project for New Era University College, Kajang for a 40kW sized through amending the drawings of the solar panels on their rooftop.

EDUCATION

Sep. 2023 – Jan. 2024	**Certified Associate in Data Analytics @ K-Youth Development Programme** *Talentlabs | Kuala Lumpur, Malaysia* • **Key Subjects:** (Statistics for Data Analysts, Data Analytics with Python, Exploratory Data Analysis, Predictive Analytics, ETL)
Sep. 2019 – Aug. 2023	• **B.Eng. in Electrical** *Universiti Sains Islam Malaysia | Negeri Sembilan, Malaysia* CGPA: 3.36/4.0 | (Semester 7/ Semester 8) **Key Achievement** Achieved Dean's list in Semester 3 (3.62)

ACHIEVEMENT(S)

2023	**CHESS Symposium 2023 – Innovation Pitch Competition** *Participant* • Submitted an entry for the competition entitled "Predictive Electrical Consumption for Building Energy Management using XGBoost" under the category of Sustainability.
2022	**Electrical Power System Simulation Competition (EPSSCOM) 2022** *Best Effort Award* • Designed a 50MW Large Scale Solar Farm using PVsyst. • Simulated the design for power analysis study using Power System Simulator for Engineering (PSSE).