Zibran Zarif Amio

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EXPERIENCE

Full-stack Machine Learning Engineer
06/2023 – Present

ReplyMind AI Ltd. ↗

- Developed ReplyMind, a Google **Chrome Extension** to grow social engagement on LinkedIn, Twitter/X, and Product Hunt with **Generative AI** Technologies (GPT4, Claude3)
- Published the Extension on Chrome **Webstore** ↗ and acquired **1,000+** active users with **4.9/5** rating to date.
- Achieved twice the **2nd** Product of the Day ↗ on Product Hunt and acquired **500+** paid users from **AppSumo** ↗ campaign.
- Published ReplyMind keyboard on **Play Store** ↗ and leading development of LLM-enabled applications.

Data Science Trainee
03/2024 – 08/2024

MasterCourse ↗

- Gained a strong foundation in **Data Science** fundamentals, including **Python**, data structures, algorithms, statistical analysis, EDA, and data visualization.
- Executed end-to-end Data Science pipeline, including data collection, ETL processes, advanced analytics, machine learning modeling, and deployment.
- Developed expertise in **Deep Learning** techniques and frameworks, including **PyTorch**, **Fastai**, and HuggingFace, to build and fine-tune models for various applications such as CV, NLP, and collaborative filtering.

EDUCATION

Bachelor of Science (B.Sc.) in Computer Science & Engineering - CGPA 3.67/4.00
2019 - 2023

Islamic University of Technology - IUT, OIC

PROJECTS

Multilabel Scifi Tags Classifier ↗
GitHub | Kaggle | Live

- Developed a multi-label text classification model to classify **160** tags from scifi & fantasy questions.
- **30,000** rows of data were scraped using **Selenium**, transformed using **Pandas**, and published to **Kaggle** for public use.
- Achieved an F1 score of **74.5%** by fine-tuning HuggingFace transformers on the scraped data using **Fastai**.
- Compressed the model size by **75%** using **Blurr** and ONNX inference, and deployed to HuggingFace spaces with **Gradio**.
- A webapp was developed with **Flask** to demonstrate the project and deployed to **Vercel**.
- **Technologies:** Python, Selenium, Pandas, Kaggle, HuggingFace, Transformers, Fastai, Flask, Gradio, Vercel

Pasta Shape Recognizer ↗
GitHub | Live

- Developed an image recognizer that can classify **20** different types of pasta shapes.
- **7,000** images were downloaded using DuckDuckGo search API and augmented using **Fastai**.
- Achieved **85.6%** accuracy by fine-tuning **PyTorch** image models, including ResNet34, ResNet50, MobileNetV3, etc.
- The model was deployed to HuggingFace Spaces with **Gradio** and integrated with a GitHub Pages website.
- **Technologies:** Python, PyTorch, Fastai, timm, HuggingFace, Gradio, CUDA, GitHub Pages

Industry Market Cap Analysis ↗
GitHub | Kaggle | Live

- Created financial analysis dashboards with **Tableau** comparing **1500** companies across **8** industries.
- **1,500** rows of data were scraped using **Selenium**, transformed using **Pandas**, and published to **Kaggle** for public use.
- Interactive plots were used to reveal leading industries in terms of market capital, profitability, employee productivity, etc.
- **Technologies:** Python, Selenium, Pandas, Tableau, Matplotlib, Plotly, Kaggle, Git

ResumeChat AI ↗
GitHub

- A Retrieval-Augmented Generation system to chat with Applicants' Resumes and an Extension to connect on LinkedIn.
- PDF to vector embedding conversion time was reduced by **85%** with Sentence transformers from HuggingFace.
- Improved quality of **Semantic Search** utilizing Hybrid Retrievers and **Cross-Encoders** to retrieve and re-rank contexts.
- Ollama response completion time was reduced by **30%** via stream handling with FastAPI, SSEClient, and LangChain.
- A Chatbot and an Extension were developed with **Streamlit** and **JavaScript** respectively to handle LLM response.
- **Technologies:** Python, JavaScript, RAG, Ollama, ChromaDB, LangChain, FastAPI, Streamlit, SSEClient, Git

SKILLS

Programming Languages: Python, JavaScript, C/C++

Frameworks / Tools: PyTorch, Fastai, HuggingFace, Selenium, Pandas, Matplotlib, Plotly, Streamlit, Flask, SQLite, Git, Gradio, LangChain, GPT4, Claude3, Llama3, Vercel, Render, React, Node, Firebase, HTML5, CSS3

Tools / Tech: Visual Studio Code, Google Colab, Kaggle, Postman, Tableau, PowerBI, IntelliJ, Android Studio