GitHub: maxlr8 (*Technical Profile*)
LinkedIn: 64maverick97
Portfolio: https://maxlr8.github.io/

SHARATH K PRABHU
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Professional experience

AI Engineer
Office of Research and Innovation Services (ORSIE), **The AI Hub DC**, *Oshawa, CA* **(May 2022 – Present)**

- **TxtSquad**: Implementing an AWS BedRock-based AI framework using LangChain to automate creating and modifying medical appointments from patient conversations.
- **MusicGen AI:** Implementing a Generative AI application for augmented Music Generation based on varied musical characteristics.
- **Pre-Diagnosis Medical Bot:** Implemented an OpenAI-LangChain-Pinecone-based pre-diagnostic medical chatbot API that dynamically propels the conversation to a specific medical domain based on the patient's responses and conducts an assessment by retrieving all the relevant questions from the vector store based on a similarity threshold.
- **Maverick:** Designed a GPU-dockerized GPT4All-based fine-tuned LLM model-backed educational Voice Bot encompassed as an Ionic-built Android application deployed into an Android-based IPAL robot with abilities to listen, comprehend, speak, and provide geographically dynamic information such as date, time, and weather details.
- **Pickering Chatbot:** Implemented an OpenAI-LangChain-Pinecone-based Chatbot application tailored to serve as a helper bot to the website of the Government of Pickering that provides information by retrieving relevant information from the vector store.
- **N.A.C.E Classifier:** Engineered a fine-tuned BERT-based transformer model to perform a multi-class-multi-level classification algorithm to classify European economic activities called NACE codes enveloped as a Flask application with an accuracy closer to 90%.
- **Text Summarizer:** Built a GPT-2 powered Text Summarization Model by experimenting with implementing data extraction and pre-processing pipeline.
- **Unity ML-Agents:** Carried out studies and experimentations on On-Policy and Off-Policy algorithms to design agents, and environments and performed hyperparameter optimisations to define optimal performance parameters for the RNN-based agents implemented in a Unity-based game called Little Learning Machines.
- **Next-Word Predictor:** Developed an end-to-end application running a GPT-2 model under the hood to predict the most likely next word while typing a sentence, with a specific user dashboard tracking word usage metrics and offering user login and auth features.
- **QuantumEV:** Designed and implemented secure login and sign-up functionality integrated with Django DB and authentication restructuring the internal class architecture to provide role-specific data and application access to a dynamically streaming EV-based project.
- **Start-Up Ranker:** Developed a Django application designed for regression-based startup ranking trained to rate the success of a start-up assessed on many parameters with multi-format input and output APIs to request and retrieve data.

Software Developer
Accenture Private Limited, *Bangalore, India* **(Sep 2019 – Dec 2021)**

- Worked with a team of 20+ engineers on a large-scale Australian NBN Co. project to automate and streamline their website designing automated batch classes and triggers for deployments, third-party RESTful API integrations and handling cross-sandbox data migrations and deployments.
- Collaborated with the development team on a time-sensitive project – Vaccine Management System for a North American Govt. Delivered robust Process Automation frameworks, ETL processes, and Data Pipelines for efficient data migration and deployments.
- Worked for a large-scale US-based pharmaceutical client, AmerisourceBergen, to create complex data visualisations for the dynamically generated data by the integrated AI application that augments the visuals tailored to diverse sets of required parametric configurations.
- Handled Data Extraction and Migration using Data Loaders and Workbench syncing Dev, Test, UAT, and Production Sandboxes.

Technical Expertise and Certifications

Languages & OS: Python , Shell , SQL , HTML , CSS , JavaScript , Markdown , Linux
Frameworks: LangChain , PyTorch , TensorFlow , Pandas , NumPy , Django , Flask , NLTK , OpenCV , Spacy , Plotly , Matplotlib
Cloud and DBs: AWS EC2 , EKS, Lambda , Boto3 , S3 , VPC , Glue , BedRock , IAM , MS Azure , MySQL , MongoDB , PostgreSQL , SQLite
DevOps: Dockers , ETL , Airflow , Kafka , PySpark , Kubernetes , Helm
Software and Tools: Tableau , Git , Jenkins , Scrapy , Jira , Confluence , Jenkins
Certifications: Deep Learning Spec. | Data Engg. Spec. | OLP Stack | AWS Training | MS Azure Training | ML with Python | Complete Python

Education

Cloud Computing Technologies (PGDM), George Brown College, Toronto, ON. **(Jan 2023 – Aug 2022)**
Artificial Intelligence Design, Analysis & Implementation (PGDM), Durham College, Oshawa, ON. **(Jan 2022 – Dec 2022)**
Bachelor of Electronics and Communication Engineering (BTech.), VTU, Bangalore, IN. **(Aug 2015 – Jul 2019)**

Permits

Work: On **PGWP** – Validity: **Aug 2026.**
US Visa: On **B1 / B2** – Validity: **June 2028.**