

# ADWAITH S

Machine Learning Professional | IBM Certified AI Engineer | Azure Cloud Integration Specialist ·  
adwaithsanthosh1@gmail.com · +918075996470

## EXPERIENCE

### Tata Consultancy Services Systems Engineer

Chennai  
Jul 2021 - Sep 2023

- Developed a Matrix factorization based Hybrid recommendation model (LightFM) for a US based retailer and did code and functional optimization to bring down the run time of the model from 7hrs to 2.5hrs using Pytorch ,Numpy and hyperparameter Tuning
- Added client specific requirements to the recommendations model like Best Sellers , New Arrivals (Using Pytorch) , Gender Specific Recommendations , Brand/Class Specific Recommendations etc
- Worked on a Deep Learning model for session based recommendation model and deployed it in Azure ML Studio using Pipelines and created an API with less than 10ms response time(using Pytorch) for Real Time recommendations
- Proficient in Exploratory Data Analysis (EDA) on customer data to identify crucial features to integrate into the model(Pre Deployment) and did final customer clickthrough analysis to see the response rate of customer clicks on the recommendations(Post Deployment) )
- Developed an Offer Optimization Algorithm that can predict the probability of a customer buying a certain product and calculating the Optimum number of offers to allocate for the customer(AI Generated Offers)
- Worked with ChatGPT to provide explanations on why such a recommendations was given to the customer for the Session based recommendation model(Integrated with pytorch)
- Collaborated with Optimization Team, UI team ,Engineering team for the smooth operation and end to end workflow of the project
- Deployed multiple machine learning Models in Azure Machine Learning Studio and Automated the workflow using ML Pipelines in a fully dynamic system

## SKILLS

Programming Skills:	Python, Pytorch, Tensorflow, Numpy, Pandas, Flask, Spacy, NLTK, SQL, SQLite
Machine Learning:	Recommendation Modelling, Deep Learning, Scikit-Learn, Predictive Modelling, LLM
Technical Skills:	Azure, MLOps, API, Code Optimization, Generative AI, NLP, REST API
Soft skills:	Communication, Collaboration, Problem Solving, Time management, Active listening

## PROJECTS

### GPU Based Generative AI Pre Trained model Python, llama-cpp, Hugging Face

<https://colab.research.google.com/drive/1fh0A5J-EmweLPZL3o8ODyqLVozHvNcjz?usp=sharing>

A Generative AI model has been deployed using T4 GPU which can give really fast responses from a pretrained model (LLAMA-2) with minimal usage of Ram and CPU

### ChatGPT 3.5 Turbo based Chatbot for Advanced Data collection Python, ChatGPT-API(3.5 Turbo), Flask, Spacy, SQLite

<https://github.com/CoderAd1/Advanced-ChatBot-for-Data-gathering-and-deployment/tree/main>

Advanced conversational chatbot for data gathering and deployment with Named Entity Recognition (NER),Sentiment Analysis, Hosted on RESTapi with Flask and a functional Database Using SQLite for Data Storage

## CERTIFICATIONS

### AI Engineering Specialization(6 -Course Certification)

IBM

Implement ML algorithms including Classification, Regression, Clustering, and Dimensional Reduction using scipy & scikitlearn. Build deep learning models and neural networks using Keras, PyTorch and Tensorflow libraries

Jan 2024

### Python for Everybody Specialization(5- Course Certification)

University of Michigan

Implement Python Data structures, Algorithms, Object-oriented programming, and ability to write clean, maintainable, and scalable Python code

April 2020

### Google IT Support(5- Course Professional Certificate)

Google

Possessing a comprehensive grasp of computer networking and protocols, adept familiarity with operating systems, and proficiency in scripting languages such as PowerShell, Linux, and Bash.

April 2020

## EDUCATION

---

### **TKM College of Engineering**

Btech Electrical and Electronics Engineering *GPA: 9.2*

Kollam

Jul 2017 - Jul 2021

### **Sabarigiri Residential School(CBSE)**

All India Senior School Certificate Examination Science *GPA: 94.4*

Kollam

Jul 2015 - Jul 2017

### **Sabarigiri Residential School(CBSE)**

All India Secondary School Examination Science *GPA: 9.8*

Kollam

Jul 2014 - Jul 2015