

SAKSHAM THUKRAL — *Software Engineer with 2 years of experience*
(Member of AI-Center of Excellence Team at Unthinkable Solutions)

Technical Skills: Python, AI/ML and Data Engineering

Communication Skills: Excellent

Summary

- Experience in working with various frameworks of Python like Falcon, Django and Flask
- Experience of working in NLP, Machine Learning and Deep Learning
- Experience of working with GCP and AWS cloud services
- Experience of architecting and implementing data engineering solutions leveraging Airflow, Dataflow, Kafka, Druid, Glue, etc..
- Experience of working with various Data Analytic tools like Data Studio and Jedox
- Experience of working in SQL, and NoSQL databases
- Have good Knowledge of BigData pipelines, MapReduce, HDFS, YARN, SPARK, Hive etc..
- Acknowledged and apprehended the organization process of managing the project communication
- Source code management, timesheets, and budgeting over Project Management tools like Jira and Manaze
- A dynamic team player with good written and verbal communication skills

Work Experience

Unthinkable Solutions (Daffodil Software), Gurugram, India

Intern - Software Engineering

01/ 2021 - 07/2021

- Started as an intern but later promoted to the profile of Jr. Associate - Software Engineering in July 2021
- During internship period got training in Big-Data, Machine Learning and Deep Learning

Software Engineer-AI/ML

07/ 2021 - PRESENT

- I Developed a dataflow pipeline for an electricity-providing company based in Nigeria

that significantly reduced data reporting time from 24 hours to 15-minutes and helped the business team to analyze the latest data in reports to make timely business decisions.

- I Developed an Automated Speech Recognizer(ASR) for a legal technology company renowned for developing a suite of products for Legal Practitioners, Judges, Academics, and Students. ASR was supposed to be used in High Courts and Supreme Courts of Nigeria to automate the process of transcribing court proceedings.
- Became part of a team that developed an e-commerce app for casual wear and merchandising clothes and a mobile content management system(CMS). The team helped them increase their traffic by two times, brought 4 Million new customers, and led overall growth of 4 times in just two years.

The Sparks Foundation, Heng Mui Keng Terrace, Singapore

Data Science Intern

09/2020 - 10/2020

- Successfully completed my internship at The Sparks Foundation in the field of Data Science. Throughout my internship I explored and implemented various Machine Learning algorithms like Linear Regression, K-Means, Decision Trees, etc. . in order to provide solutions to certain problems

Skill Summary

- | | |
|------------------------------------|---|
| ➤ Operating System(s): | Linux, Windows |
| ➤ Scripting Language(s): | Python, Bash |
| ➤ Databases: | MySQL, BigQuery, SQLite, CouchDB, Redis |
| ➤ Programming Language(s): | C/C++, Python, JavaScript |
| ➤ Tool(s)/IDE(s): | Git, VS Code, Pycharm, Postman, GCP |
| ➤ Library(s)/Frameworks(s): | Falcon, Django, Flask, GraphQL, Sci-kit Learn, NLP, Keras
Tensorflow, Pytorch, Spark, Docker(PaaS), Airflow, Kafka |

Key Projects

1. Project Name – I.AM+

Project Description: Founded by innovator & global music artist will.i.am, I.AM+ is a

Hollywood-based technology company whose mission is to create technology that produces a ripple effect across pop culture. Their vision is to foster a community of creatives and coders and they believe that through music and tech as the first step, they can usher in a powerful new era built on artificial intelligence

I am currently working as an AI Engineer and my task is to develop an Automated Speech Recognition Engine that should give a WER (Word Error Rate) of less than 15 at-least for the domain in which their application will be widely used. I also have to integrate the Speech Recogniser with their application optimally considering the tradeoffs between getting accurate transcriptions and the processing time to get the transcription.

Project Title	I.AM+
Duration	5 Months
Environment	Python, HMM-GMM, Kaldi toolkit, Vosk-API, Nvidia RIVA
Role	AI-ML Developer
Responsibilities	<ul style="list-style-type: none">● Understanding the business requirements● Data Extraction and Preprocessing● Building multiple ASR models for selecting the best● Working on ensuring efficient and optimized Decoding and Rescoring● Making ASR robust enough to transcribe Out-of-Vocabulary words specific to distinct locations in which they will be used● Work on Offline integration● Monitoring and improving the accuracy of the ASR model

2. Project Name – The Souled Store (Website, Android & iOS Applications)

Project Description: The Souled Store is an online retailer that sells fashion items and accessories to its users. The platform's product portfolio consists of t-shirts, mobile covers, badges, boxers, pajamas, notebooks, mugs, posters, coasters, backpacks, socks, umbrellas, tote bags, painted shoes, and wristbands.

I worked on the backend of the website/mobile app to design and maintain REST APIs for varied customer requirements such as launching new features, integrating 3rd party services, etc. In addition, I worked on the application's consumer side to incorporate new feature features while keeping the principles of code reusability and code efficiency in mind.

Project Title	The Souled Store (Website, Android & iOS Applications)
Duration	4 Months
Environment	Python, Falcon, SQL, CouchDB, Django, MongoDB, Redis
Role	Backend Developer
Responsibilities	<ul style="list-style-type: none"> • Understood the Flow of the code • Created APIs using Falcon framework in Python. • Created reusable functions while working on my tasks • Worked closely to fulfill client's all requirements timely. • Embedded certain 3rd party services in code flow as desired by the business team

3. Project Name – LawPavilion

Project Description: LawPavilion Business Solutions (previously Grace InfoTech Limited) is a prominent provider of legal IT Research Tools whose mission is to assist Lawyers, Judges, and Law Firms in making the most of their legal profession by providing cutting-edge IT Solutions for the Legal Industry.

As part of LawPavilion's commercial solutions, I created an Automated Speech Recognition engine intended to be utilized in judicial courts to automate the process of transcribing court hearings. The Deep Learning technique was used to train the model, and the Flask framework and GCP services were used for shadow deployment, allowing the business team to assess the performance of the most recently taught model.

Project Title	Lawpavilion ASR
Duration	7 Months
Environment	NLP, TensorFlow, Keras, GCP, Flask, Pytorch, Transformers
Role	AI/ML Engineer
Responsibilities	<ul style="list-style-type: none"> • Understanding the business requirements • Data Extraction and Preprocessing • Building an ASR model • Creating an API interface for operating and testing the latest trained model version • Monitoring and improving the accuracy of the ASR model

4. Project Name – Datapex (BuyPower)

Project Description: BuyPower lets you pay for your electricity bills online, from the comfort of your homes and offices. The platform has simplified the process of paying for utilities and has integrated tools and features to help you manage and conserve these utilities.

I created multiple business insight reports for the client. Resolved bugs in previously built reports and created new insightful and impactful business reports for the client by connecting the client's database on Google BigQuery with Google Data Studio. I also developed a dataflow pipeline that significantly reduced the delay in reporting the latest data, which helped the business team to make timely business decisions.

Project Title	Datapex(BuyPower)
Duration	4 Months
Environment	Python, BigQuery, Google Data Studio
Role	AI/ML Engineer
Responsibilities	<ul style="list-style-type: none">● Understanding the business logic● Understanding the ongoing dataflow● Correcting previously built reports and also creating new ones● Monitoring and optimizing the reporting time

Education

Graduation	University/School	CGPA/Percentage
Bachelors in Technology in Computer Science (B.Tech)	Guru Nanak Dev University (Amritsar)	Cgpa:- 8.16/10
Class 12th (Science)	DAV Public School (Amritsar)	Percentage:- 63.6%
Class 10th	DAV Public School (Amritsar)	Cgpa:- 8.2/10