(413) 275-6066 email medium.com

# **Anushka Sirpurkar**

github.com linkedin.com Seattle, WA

CGPA 3.7/4

#### **EDUCATION**

**Master of Science in Business Analytics** 

Sep 2022 - Dec 2023

University of Massachusetts, Amherst

Relevant Coursework: Python for Data Science, Databases: Modelling and Theory, Data Science for Business, Healthcare Analytics

**Bachelor of Engineering in Information Technology** 

Aug 2017 - Jun 2021

University of Pune, Pune Institute of Computer Technology, Pune, India

CGPA 9/10

#### PROFESSIONAL EXPERIENCE

#### Process Improvement Analyst, (Data Platform Team) - Sanford Health, Remote

Jul 2024 - Present

- Automated CI/CD workflows for ETL processes using Python & AWS Glue for data integration across sources, reducing deployment time by 40%
- Designed ETL pipelines for migrating data from multiple ERPs (Tecsys, Lawson, etc.) to Redshift data warehouse, ensuring system-wide consistency
- · Designed multiple real-time data linkage processes for integrating data sources and enabling accurate and low-latency reporting for supply chain metrics

#### Student Research Assistant - University of Massachusetts, Amherst

May 2023 - Aug 2023

- Led development & maintenance of a Python-based data monitoring pipeline using Airflow to track files received from UMass School of Agriculture
- · Automated archival of older files in the HANA transport folder using Apache Airflow, ensuring streamlined data hygiene & optimized storage

Data Engineer - AK Fiserv, India

Mar 2022 - Aug 2022

- Built data pipelines for ingesting data from multiple sources(Workday, Peoplesoft, Salesforce, third-party vendor APIs) and load it into Snowflake using Spark, Python, AWS(S3, EC2, Lambda, Glue), and Snowpipe, etc
- Led cost-saving initiatives by implementing query tags in Airflow DAGs via Databricks & optimizing Snowflake queries, reducing monthly costs by 30%
- Migrated processes from username-password to key-pair authentication for all Spark & Snowflake connectors that reduced vulnerabilities by 80%
- Collaborated with cross-functional teams to discuss Data Profiling requirements and create Source-To-Target-Mapping (STTM) documents

#### Data Engineer (GET)- Vodafone, India

Jul 2021 - Feb 2022

- Engineered scalable data pipelines for 30M+ real-time Kafka messages, transforming & loading into Snowflake tables and AWS storage with Prefect, cutting runtime by 65%
- Implemented a proactive alerting system to swiftly identify server downtime and monitor crucial server metrics, reducing downtime by 80%
- · Engineered data transformation workflows to extract 15+ key performance indicators (KPIs), finding critical insights for customer churn cycle

## Machine Learning Intern - Yibe, India

Sep 2020 - Mar 2021

 Developed an image captioning model using encoder-decoder architecture and transfer learning in TensorFlow, achieving a BLEU-1 score of 0.66 on the Flickr30K dataset by integrating InceptionV3 for precise image feature encoding

## PROJECTS AND RESEARCH

#### Predicting Chess Games, Airflow, Spark, GCP, Databricks, MongoDB

Dec 2023

- Designed an automated ETL pipeline using Airflow to pull 3M rows of chess game data from Chess.com APIs, processing this data on GCP buckets
- Transferred stored data from buckets to MongoDB clusters and connected it to a Databricks cluster to develop classification models, leveraging
   SparkMLlib to classify game outcomes and surpassing traditional ELO benchmark accuracy by 2.11%

# GenAl PDF Summarization and Interaction with ChatGPT, Python, OpenAl API, LangChain, RAG, Flask

May 2024

- Built GenAl PDF-GPT, a web application using OpenAl's ChatGPT API and Retrieval-Augmented Generation (RAG) for advanced document analysis
- Extracted and summarized critical insights from uploaded PDF files by using ChatGPT's robust summarization capabilities for quicker data access Implemented a chat interface for user interaction with extracted PDF information and used LangChain for efficient information retrieval from PDFs

# Multimodal Resume Analysis, Python, TensorFlow, PyTorch

Aug 2023

- Developed an advanced resume analyzer capable of extracting and analyzing text, images, and audio data from resumes and multimedia presentations
- Engineered a TensorFlow-based pipeline to preprocess multimodal data for real-time classification, achieving processing of upto 500 resumes/minute

## Transliteration of Sanskrit Using Natural Language Processing, Python, NLP, Neo4j

Jan 2023

- Designed a platform that understood Sanskrit & performs NLP-based transliteration from English to Sanskrit & performs semantic relation analysis
   Fabricated a complex WordNet using Graph Database for the storage of 65,000 Sanskrit words & built a transliteration module for converting
- given Sanskrit text in English script to its Devnagiri equivalent

# **PUBLICATIONS**

"Behind the Scenes at Lyft: How Airflow and Flyte Power Data Workflows", Medium

Jan 2025 Sep 2021

"Applications of IOT in E-toilet Management System", International Journal of Emerging Technology and Research, ISSN:2349-5162

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# CO-CURRICULARS

Scholarship Reviewer, Grace Hopper Celebration (GHC) 2023 AnitaB.org

May 2023

Volunteer, Voices of Data Science (CICS) – University of Massachusetts, Amherst

Aug 2023

• Volunteer, Isenberg Women in Business, University of Massachusetts, Boston

Oct 2023

#### CERTIFICATIONS

**SKILLS** 

Google Data Analytics Professional Certificate, Google, Coursera | Advanced Google Analytics, Google Analytics | Deep Learning Specialization, deeplearning.ai, Coursera | Python 3 Specialization, University of Michigan, Coursera | Introduction to Machine Learning, IIT Madras, NPTEL

Languages : Python, SQL, C++, R, HTML/CSS, JavaScript

Libraries : Pandas, NumPy, Scikit-learn, NLTK, OpenCV, Matplotlib, Keras, Scipy
Frameworks & Tools : Hadoop, Spark, Airflow, TensorFlow, PyTorch, Databricks, Kafka

Databases & DWs : Snowflake, PostgreSQL, MongoDB, Neo4j, BigQuery, Delta Lake

Cloud Platforms : AWS (S3, EC2, Lambda, SageMaker, Redshift, Glue), GCP

Others : Docker, Jenkins, Tableau, Power BI, JIRA, dbt, LangChain, GenAl