

THOMAS GEORGE THOMAS

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SKILLS

Programming Languages: Python, Scala, SQL, Unix shell scripting, Cypher
Data Engineering: Hadoop, Apache Spark, Hive, Impala, Sqoop, API, Streamlit, Control M, Heroku
Amazon Web Services: S3, Athena, Glue, EMR, EC2, Lambda, Step Functions, Batch, SQS, Redshift, Boto3
Databases & Data Warehouses: Snowflake, Microsoft SQL Server, MySQL, MariaDB, SQLite, MongoDB, Neo4j, PostGres
Packages: Pandas, NumPy, Scikit-learn, Matplotlib, Requests, BeautifulSoup, Multiprocess, Pytest, SQLAlchemy, Plotly
Data Visualization & Other Tools: Tableau, Flourish, Data Wrapper, DBeaver, Jupyter Notebooks, Anaconda
DevOps & CI/CD: Agile, Git, Bitbucket, GitHub, Atlassian Bamboo, CRON, Maven, Confluence, Jira
Certifications: IBM Certified Data Science Professional

EXPERIENCE

Data Analyst February 2023 - Present

Northeastern University, Boston, USA

- Building a Dashboard for 20 Smart Homes showcasing uptime analysis, energy prediction, and KPIs on Plotly Dash and MariaDB

Data Engineer July 2022 - December 2022

Montai Health, Cambridge, USA

- Developed AWS ETL pipelines using Redshift, SQS, Lambda, EMR, EC2, PySpark, Athena, and Glue to transform 100 TB data
- Established health, drug, and bioinformatic Data Lake from RDBMS (SQL) and NoSQL databases on AWS worth 100 TB
- Created web scrapers to crawl data from CSVs, XMLs, Parquet, APIs, and FTP servers, leveraging Python to collect 5 GB data daily
- Implemented CI/CD, test-driven development, and test automation on GitHub actions, increasing code quality by 100%

Senior Big Data Engineer June 2018 - August 2021

Legato Health Technologies, Bangalore, India

- Constructed data pipelines for 5 initiatives, including providing Clinical Investigative Insights in AWS, Hadoop, and Apache Spark
- Migrated 112 TB of data from on-premises Hadoop cluster onto AWS Cloud and Snowflake
- Innovated and automated post-migration validation reports in Spark Scala, leading to \$7000 quarterly savings
- Executed continuous integration and continuous deployment (CI/CD) pipelines for 4 projects deploying DevOps
- Chaired release management and code migration for production/pre-production environments for 5 projects

Software Engineer - Hadoop Developer & Big Data Engineer June 2016 - May 2018

Middle East Management Consultancy and Marketing, Muscat, Oman

- Shipped and delivered analytics dashboard, leading to an increase in pharmaceutical sales by 12% annually
- Developed pipelines to handle data of 1.5 TB/day from ingestion to reporting layer using Shell script, Hadoop & Spark
- Implemented dataset transfer of 26 TB between Hadoop and MySQL RDBMS leveraging Sqoop
- Performed performance tuning in Spark, SQL, and Sqoop, resulting in a 60% response time reduction
- Restructured and redesigned Data Lake to utilize Parquet and Snappy compression to cut 30% storage and compute costs

EDUCATION

Master of Science, Data Analytics Engineering

Northeastern University, Boston, Massachusetts, USA

Expected December 2023

Relevant Coursework: Data Mining, Machine Learning, Data Management for Analytics

Bachelor of Technology, Computer Science and Engineering

Manipal Institute of Technology, Manipal University, Manipal, India

May 2016

PROJECTS

Appliances Energy Prediction March 2023 - May 2023

- Predicted the energy consumed by appliances using custom-coded Machine Learning models and Algorithms like PCA, Neural Networks, Lasso, Ridge, and Linear Regression from scratch in Python with 80% confidence

YouTube Analytics Dashboard December 2022 - March 2023

- Created live dashboard on Streamlit operating Python and YouTube API, picturing Sentiments and 5 KPIs for any video