PROFILE

Experienced **Quant Data Engineer** with expertise in **gathering, processing, and analysing data** to back test and optimize trading strategies using tools like **Back trader**, **Apache Spark**, **Python**, and **SQL**. Skilled in **developing and automating algorithmic trading strategies**, deploying and scheduling them for live execution, and generating performance reports to drive data-driven decision-making in **Quant Finance**.

CONTACT

EMAIL (Preferred):
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+27 631788020
+91 8106678327

Linked-In Profile:
https://www.linkedin.com/in/dataengrsa/

PORTFOLIO

https://shashireddy40.github.io/mypag e/

CERTIFICATIONS

ISTQB-CTFL

Big Data Engineering with Hadoop and Spark from E&ICT, IIT Roorkee

PERSONAL PROFILE

Full Name:
PATOORI SHASHIDHAR REDDY

Date of Birth:
10th May 1990

Languages Known:
English, Telugu and Hindi

SHASHIDHAR REDDY (SHA-SHI)

Quant Data Engineer | Python | AWS
Johannesburg, South Africa | Remote

EDUCATION

Indian institute of quantitative finance(IIQF)
Post Graduate Program in Algorithmic Trading (PGPAT)
(2023-2024) | Online

Jawaharlal Nehru Technological University, Hyderabad, India
Bachelor of Technology in Aeronautical Engineering.(2007-2011)

WORK EXPERIENCE

SVSS TRADING (PTY)LTD
Quant Data Engineer | Remote | Freelancer | POC for 6 months
November 2024-Present

OLDMUTUAL SA
Data Engineer | Johannesburg, South Africa | Hybrid
March 2023–Oct 2024(1.6 years)

JUMO.WORLD
Senior Data Engineer | Cape town, South Africa | Remote
Oct 2020-Feb 2023 (2+ years)

SVSS TRADING (PTY)LTD
Quant Data Engineer | Johannesburg, South Africa
March 2019-May 2020. (1.3 years)

Sonata Software
Big Data Engineer | Hyderabad, India
January 2015–January 2019 (4 Years)

SKILLS

Languages:

- Python
- SQL
- Shell Scripting
- Scala

Big data Technologies:

- Apache Spark
- NiFi
- Apache Airflow
- Delta Lake, MySQL
- Pandas, NumPy
- Polars
- PostgreSQL
- Quest DB (Time series DB)
- Dashboards (Grafana)
- datadog

Utilities/Tools:

- Docker
- Postman
- VS code, Postgres
- Web scraping

Cloud Platforms:

- AWS S3,
- Redshift,
- EMR,
- EC2,
- SNS, SQS
- Lambda
- Athena, Crawlers
- GCP Big Query

Quantitative finance:

- Developed trading data pipelines for real-time and historical market data.
- Experienced in quantitative trading across equities, derivatives, and futures.
- Built and optimized data pipelines for commodities and cryptocurrencies.
- Proficient in quant development using WebSockets, time-series databases, and Python.
- Strong understanding of technical indicators and custom backtesting frameworks.
- Actively exploring machine learning applications in algorithmic trading.

- **PROFESSIONAL EXPERIENCE**

PROJECT #1:

Title:	Freelance Quant Developer | Proof of Concept (PoC) – 6 Months Equity and Derivative Markets | Commodities
Location:	Remote, Freelancer
Duration:	Nov 2024 -Present
Tools Used:	Python, WebSocket, API
Team Size:	6
Role:	Python Developer/ Quant Data Engineer

Description:

Developed a Trading Pipeline as a Proof of Concept (PoC) for systematic trading, involving data acquisition, strategy development, back testing, and deployment. Key aspects of the project included:

- Data Engineering: Collected and cleaned market data from various APIs (Equities, Futures, Derivatives). Stored processed data in AWS (S3, Redshift) and structured databases for efficient retrieval.
- Trading Strategy Framework: Designed and implemented an algorithmic trading framework to support multiple strategies, including trend-following and mean-reversion models.
- Back testing & Optimization: Built a custom back testing engine to evaluate trading strategies using historical data, incorporating transaction costs and slippage.
- Deployment & Monitoring: Automated live execution via broker APIs, ensuring real-time data ingestion and trade execution. Monitored strategies with logging and alerting systems.
- PNL Reports & Dashboards: Generated daily PNL reports and performance analytics dashboards to track trade efficiency, risk exposure, and strategy effectiveness.

PROJECT #2:

Title:	Two-Pot retirement system
Location:	Old Mutual SA, Johannesburg, South Africa
Duration:	March 2023 to October 2024
Tools Used:	Spark, Python, SQL, Postgres, AWS, Polars, Pandas
Team Size:	8
Role:	Data Engineer

Description:

The two-pot retirement system from Old Mutual in South Africa allows members to access a portion of their retirement savings for emergencies while keeping the rest invested until retirement.

Responsibilities:

- Design, create, build & maintain data pipelines
- Gathering data from various sources and Sending to the Two Pot system data warehouse.
- Transforming data with spark and writing the data with various data formats
- Creating Dashboards with Dynatrace and creating notifications for the failures
- Automating the CI/CD Pipeline for the entire data pipeline

PROJECT #3:

Title:	Data Systems (EDW)
Partners:	Tigo, Airtel and MTN
Location:	Cape town, South Africa
Duration:	October 2020 – February 2023
Tools Used:	AWS, Spark, Python, SQL, Airflow
Team Size:	5
Role:	Senior Data Engineer

Description:

JUMO is the market leading banking as a service platform, enabling real-time access to funds at the lowest possible operating cost.

Integrating into JUMO's platform enables our partners to offer loans, savings and a wide range of financial choices to a new group of customers.
The first ecosystem partnerships were established with Tigo, Airtel and MTN to bring short-term loan products to people and small businesses in Kenya, Zambia and Uganda.

Responsibilities:

- used various operators ETL pipelines that extract data from multiple sources, Transforming and stored in Delta Lake in optimized way
- Focus on simplified data models that represent business processes, operational excellence, systems & services resilience and efficiency, availability, maintainability, security.
- Building and handling successful designs, pipelines and development using Spark and AWS for large data processing systems
- build and manage workflows programmatically with Airflow
- Working in agile software-development methodology and utilizing technologies such as Jira, Git, Jenkins, Spinnaker
- Improvement of engineering processes (i.e., design reviews, build, operations, testing, release/deploy, monitoring etc.).

PROJECT #4:

Title:	**Trade Data Pipeline & Predictive Modelling for Algorithmic Trading**
Client:	Individual Clients (NSE/BSE Indian Markets).
Location:	Sandton, Johannesburg.
Duration:	March 2019 to May 2020
Tools Used:	Python, SQL, Postgres, AWS S3
Team Size:	4
Role:	Quant Data Engineer | Quant Specialist

Description:

Developed an automated data pipeline for gathering and processing trade and stock option data to support algorithmic trading strategies. Implemented robust back testing frameworks to validate strategies using historical data, ensuring optimal performance and risk management. Collaborated with machine learning engineers by providing accurate datasets to train predictive models for price action, enabling data-driven decision-making in real-time trading environments

Responsibilities:

- Designed and developed robust data pipelines to gather, clean, and process large volumes of trade data from various financial markets and exchanges.
- Implemented and optimized back testing frameworks for testing and validating algorithmic trading strategies using historical market data.
- Collected and processed stock option data, analysing trends and patterns to support trading strategy development and optimization.
- Collaborated with machine learning engineers to provide accurate and timely datasets, enabling predictive models for price action forecasting.
- Automated data gathering for real-time market data streams and option chains, integrating with internal analytics platforms to improve decision-making.
- Conducted exploratory data analysis (EDA) and statistical modelling to identify profitable opportunities and enhance trading algorithms.
- Utilized tools like Python, SQL, Pandas, and cloud platforms (AWS) for scalable data storage and analysis, ensuring efficient and low-latency data access for trading operations.

PROJECT #5:

Title	: TUI Travel Group
Brands	: Thomson Airways, Amadeus System, British Airways.
Client	: TUI UK, British Airways.
Location	: Hyderabad, India.
Duration	: March 2015 to December 2018
Tools Used	: Hadoop, Hive, Spark, Sqoop, Cloudera, Tableau
Team Size	: 10
Role	: Big Data Engineer.

Description:

TUI Group is a multinational travel and tourism company. It is the largest leisure, travel and tourism company in the world, and owns travel agencies, hotels, airlines, cruise ships and retail stores. TUI Travel Group have several UK-based tour operators Thomson Holidays and First Choice, by using this brands Passengers able to Book Flight tickets, Hotels and Holiday Packages with Cheapest Prices to Major European Countries

Responsibilities:

- Designing and implementing semi-structured data analytic platform leveraging Hadoop.
- Extensively used Hive/HQL or Hive queries to query or search for a particular string in Hive tables in HDFS.
- Worked on analysing Hadoop stack and different big data analytic tools including Pig, Hive, and Sqoop.
- Implemented Spark using Scala and Spark SQL for faster processing of data.
- Exported the analysed data to the relational databases using Tableau for visualization and to generate reports for the BI team.