SURYA RAVIKUMAR

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Summary

- Results-oriented professional with 3+ years of experience in the IT industry, focusing on Python Backend and Machine Learning applications. Proficient in utilizing the Spark framework extensively, with Python as the primary programming language. Experienced in developing Python ML-based agile-models with parallelization.

Skills

- Python | PySpark | Apache Spark | Scala | R programming | Django | Flask | Data Analysis | SparkRDD | SparkSQL | SQLite | MLlib | HDFS
- Big Data Processing | Apache Sqoop | Python MLlib | AWS Compute Services | AWS CLI | Python Libraries | Docker | OOP | RestAPI | API
- Version Control: Git Bash, Bitbucket | IDE & Build Tools: VS code, Spark shell, IntelliJ, Notepad ++ | Operating Systems: Windows, LINUX

Experience

Software Engineer — **Ipsos Research Private Limited** — *Bengaluru, India* — **12/2022 - Current**

- Collaborated with innovation and data modeling teams, stakeholders, and data analysts to comprehend data requirements and translate them into technical specifications and structured data representations.
- Architected and developed a sophisticated Bayesian framework tailored for agile attribution within the MTA platform, providing advanced analytics capabilities to optimize marketing strategies and enhance **ROI**.
- Developed Spark applications in **Python** and **Scala, R** for performing **data cleaning**, **event enrichment**, **data aggregation**, and **data preparation** to meet business requirements.
- Leveraged **Apache Spark's** distributed computing capabilities to process large volumes of data efficiently, enabling parallel processing across distributed clusters for optimal scalability and performance.
- Optimized workflows to leverage **multiprocessing, mapPartition** and **foreachPartition** functions effectively, ensuring parallel processing tasks were efficiently distributed across CPU cores or cluster nodes for maximum throughput and scalability.
- Utilized Python libraries (**scikit-learn, SciPy, Pandas, NumPy,** etc.) for comprehensive data manipulation and analysis, seamlessly integrated with object-oriented Python code.
- Implemented various **MLlib** and statistical techniques (**Pearson correlation, logistic regression, ridge regression, semi-partial correlation**, etc.) for data-driven decision-making.
- Orchestrated AWS deployment, leveraging **Lambda** with **SQS triggers**, **Batch** for Python in **Docker**, Creating **EC2** instances and **EMR** clusters for spark job deployment, and seamless **S3/DynamoDB** integration for efficient data management.
- Recognized with the **"Star Performer"** award for outstanding contributions to the development of the **Agile Attribution engine**. Award Description: Acknowledged as a quick learner who swiftly understood requirements and delivered elegant solutions, significantly accelerating the development of the Agile Attribution engine.

Onsite Engineer — **ABB – SEPL - JVB** — *Bengaluru, India* — **07/2021- 08/2022**

- Leveraged Python programming expertise to integrate cutting-edge technology such as the Rexroth Bosch. **Mobile Industrial Robo (MIR)** Training and Integration using MIR Software & **API**, triggered through a **user-friendly Python-based** application.
- Developed safety-centric designs with Python-integrated features including component presence sensors, safety curtains, and responsive paddles for user acknowledgment during loading, all geared towards enhancing operational safety and efficiency.
- Managed data end-to-end in a big data setup, moving data from **SQL Server** and **AWS S3** to **HDFS** using **Sqoop**, then organizing it into **Hive** tables for efficient querying.

Education

Bachelor of Engineering — **Anna University** — *Chennai, India* — **07/2017 - 04/2021**

- Major in Electrical and Electronics Engineering

Projects

- **DATA OPTI PREDICTED MODEL** : Project's focus on leveraging predictive modeling techniques to optimize data. (**ML algorithm**) (**2023**)
- **Online Inspection Using Cognex Vision system:** Python for streamlined defect inspection leveraging precise machine vision technology to enhance efficiency in online inspection processes while eliminating the need for complex filters. **Certified** by Ark Tech (**2021**)

Others

- **Volunteer Experience:** Successfully organized and executed the **Ignito** meetup event at KPRIET, *Coimbatore, India*
- **Awards & Honors:** "**Star Performer**" Award, Ipsos MMA (2024), Certified "**Game Changer**", Ipsos (2023), Python (Programming Language) Badge -LinkedIn (2022), Certified in Industries 4.0 Revolution Project participant (2021)
- **Certification and spare time courses**: Python for Data Science and Machine Learning, Master Big Data with PySpark & AWS