Mrudula Vijayanarasimha

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EDUCATION

Rochester Institute of Technology, New York   Aug 2017-Apr 2019
Master of Science (MS) in Computer Science, Minor: Data Science

TECHNICAL SKILLS

Programming: Python, SQL, Java, .NET
Cloud Platforms: AWS, Azure, GCP, Hadoop, Spark, Kafka
DevOps Containers: Docker, Kubernetes, CI/CD, Jenkins, Git
Databases: PostgreSQL, MySQL, MongoDB, Redshift, Snowflake
Data Engineering: ETLs, Warehousing, Modeling, Performance Tuning

CERTIFICATION

AWS Certified Data Analytics/ML– Specialty   Microsoft Certified: Azure AI Engineer Associate
Google Cloud Professional Data Engineer   GCP Machine Learning Engineer

WORK EXPERIENCE

BMW,   Greenville, SC
Senior Cloud Data Engineer   Nov 2021 – Present

- Developed and maintained **Terraform** modules to manage a serverless architecture platform (Cloud Data Hub) using **PySpark** scripting, optimizing data retrieval processes between pipelines by 30%.
- Engineered and deployed a **Machine Learning model** utilizing 503 car use cases, integrating **object detection** and **image classification** algorithms to identify and classify defects in automobiles.
- Enhancing quality control processes and accomplished a significant monthly cost savings of $50M across global plants by reducing production errors minimizing rework.
- Customized **Data Ingestion** modules for tailored deployments upon business requests, across domains including Sales and Customer, spanning 100+ AWS accounts, ensuring the efficiency and scalability of **Glue** pipelines.
- Orchestrated AWS resources, implementing **Lambda, SageMaker**, and **Step Functions** to architect an MLops framework that streamlined end-to-end ETL processes. Attained a 15% decrease in data processing time and facilitated efficient data delivery to S3, enhancing overall data accessibility.
- Enhanced data validation for pipeline operations by implementing a **Simple Data Platform framework**, conducting checks post job completion. Resulting in a notable 25% improvement in accuracy and reliability among businesses.
- Employed **Python**, **SQL**, and visualization tools to develop **data-driven insights**, strategically aligning solutions with security business goals. Achieved a 20% improvement through comprehensive analysis and implementation.
- Incorporated **Apache Spark** and **Apache Cassandra** in leveraging **big data technologies** for extracting insights from extensive datasets. Observed a 30% increase in actionable insights, coupled with a 25% reduction in latency.
- Conducted extensive data analysis on end user issues using TensorFlow and PyTorch frameworks, resulting in the discovery of $1million in cost-saving opportunities for 2023 through optimized processes and technologies.
- Implemented robust **encryption** and **data masking** techniques, resulting in a 100% compliance rate in both internal and external data compliance audits.
- Utilized **Kafka**, **Docker,** and **Kubernetes** to ingest images and videos and streamline the deployment of ML models, resulting in a 50% reduction in time.
- Leveraged real-time data processing capabilities to accelerate the delivery of data to customers, enhancing speed.
- Led a high-alert OPS issues board, guiding a team of data engineers in collaboration with business owners and fellow engineers. Successfully addressed data issues, achieving a 100% resolution rate.
- Engineered successful rollout of three cutting-edge data products by partnering with multidisciplinary teams, deploying cloud services AWS; initiative drove a $2 million surge in annual revenue by optimized pricing strategies.

ORANGE BEES,   Greenville, SC
Software Engineer + Data Scientist   Jul 2020 – Oct 2021

- Assisted in migrating on-premises data infrastructure to AWS, reducing operational costs by 25%.
- Spearheaded the adoption of full stack features in .**NET** & **Angular** for 10 cross functional teams at GE, utilizing proprietary software to automate monitoring solutions, boosting performance metrics by 40%
- Coordinated with cross-functional groups to design and optimize **data models**, supporting advanced analytics initiatives.

WEGMANS FOOD MARKETS,   Rochester, New York
Data Management Co-op   May 2019 - Jan 2020

- Introduced a Holiday consumption model-to accurately improve stacking on shelves every holiday & saved a revenue of 20M.
- Collaborated with cross-functional teams to develop and implement reporting solutions using **COGNOS** and **Power** BI, facilitating streamlined communication and data-driven decision-making processes.