# Rama Krishna P
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## WORK EXPERIENCE

**Data Engineer, ECC**, Burlingame, California                                           May 2023 – Present
- Implemented a BI solution on **Azure**, utilizing ADLS, Lakehouse, Azure Active Directory, ADB, and ADF, achieving **99%** uptime and ensuring **96%** of data integrity for reports and dashboards.
- Engineered a data warehousing solution with **star** and **snowflake** schemas, reducing data retrieval times by **30%** and providing actionable insights, substantially aiding services and marketing departments.
- Drove the strategic data **architecture** evaluation for the development of a NLQ chatbot across Azure Synapse, Microsoft Fabric, **AWS**, and **GCP**, guiding cost-effective and compatible solutions.

**Data Engineer II, Microsoft**, Hyderabad, India.                                       Jul 2021 - Jul 2022
- Migrated on-premises **business intelligence** system to Azure, developing 40+ databricks notebooks **(PySpark, SQL)** with **zero** pipeline failures and data discrepancies on the production environment on pilot deployment.
- Optimized execution time of **3 big data** batch pipelines by **60%** by employing **Spark** techniques, efficient coding standards, and refining data transformation logic to meet business needs and minimizing data **redundancy**.
- Maintained **data platform** integrity and performance through daily and weekly testing, peer code reviews, and continuous optimization of notebook execution times, significantly reducing Azure costs by nearly **$0.2M** annually.
- Coordinated a team of 6 and addressed cross functional teams in an **Agile** environment owning product backlogs by gathering requirements from DataOps, Stakeholders and demoing incremental builds (CI/ CD) on Azure DevOps.

**Data Engineer I, Microsoft**, Hyderabad, India.                                        Jun 2020 - Jun 2021
- Streamlined **ELT** pipelines using Azure **Data Factory** and 150+ Azure **Databricks** notebooks for 5 dependent systems to process upward **20M +** transactional records every **6** hours to enhance **business intelligence** processes.
- Initiated a **Python, Scala, Spark SQL** based validation framework to automate data validation across the data engineering lifecycle, reducing error rates by **85%** and saving **9 hours** of daily manual effort for **6** teams.
- Independently enhanced data pipelines through efficient **ETL** process design, actively optimizing and maintaining production environments for uninterrupted data flow to downstream teams and systems.

**Associate Data Engineer, MAQ Software**, Hyderabad, India.                              Dec 2019 - May 2020
- Elevated user experience and reduced report load time to **9 seconds**, streamlined analytics in **Power BI** along with RLS thereby enhancing data accessibility and security, developed **DAX** measures for 5 **reports** and **dashboards**.
- Designed and executed **SSIS** ETL packages, cutting data processing time by **11%** over multiple terabytes, and utilized **SSAS** for advanced data analytics through tabular models, bolstering data-driven decision-making.
- Optimized data analysis time by developing **advanced SQL** queries and stored procedures, enhancing Power BI report efficiency with a **45%** reduction in processing and refresh times.

**Junior Data Engineer, Fratello Innotech**, Hyderabad, India.                           May 2019 - Nov 2019
- Enhanced billing automation for major retailers (Amazon, Flipkart, Snapdeal) using APIs, Selenium, and **Airflow**, boosting efficiency by **40%** and cutting labor by **60%**.
- Streamlined custom **ETL** process for a finance client using AWS **Glue** and ingested in AWS **RedShift**.
- Performed auditing, inspecting and visualizing **S3** server access logs using AWS **Lambda**, and AWS **Athena**.

## PROJECTS
- **United States H-1B Visa Data System for Operational Usage and Analytics** *(AWS Lambda,AWS Glue, Snowflake, MySQL, Tableau, Python, Pandas, OLAP, Kimball dimensional modeling, ERD, Star Schema) (Medium) (Git)*
- **Uncovering Coordinated Campaigns: Artificial Inflation of Trend Popularity on Twitter.** (AWS EMR, PySpark, Python, AWS Redshift, QuickSight) *(Medium) (Git)*
- **Real-Time Stock Market examination with Kafka** *(EC2, Athena, Apache Kafka) (Git)*

## SKILLS
- **Big Data formats and technologies:** Parquet, ORC, Hive, Apache Spark, HDFS, Hadoop, Map Reduce, Kafka.
- **Cloud:** AWS Glue, EMR, Lamda, Azure Databricks, Azure Synapse, Microsoft Fabric, GCP, Snowflake.
- **Databases and Data warehouses:** Google Big Query, MySQL, MS SQL Server, MongoDB, Cosmos DB, Postgres.
- **Programming:** C, Python, Java, Pandas, NumPy.
- **ETL and Visualization:** Airflow, DBT, SSIS, SSAS, Azure Data Factory, Power BI, Tableau, QuickSight.
- **Tools and Operating Systems:** Git, Visual Studio Code, Linux.

## CERTIFICATIONS AND ACHEIVEMENTS
- Microsoft Certified Azure **Data Engineer Associate**, Databricks Certified **Data Engineer Associate**.
- 70-761: Querying Data with Transact-SQL, 70- 778: Analyzing and Visualizing Data with Microsoft Power BI.
- Best student award (SJSU). Star of the Quarter (MAQ Software), DataLemur, Microsoft Learning Badges.

## EDUCATION
**Master of Science**, Data Science & Analytics, San Jose State University, San Jose, California, USA.
**Bachelor of Technology**, Computer Science. JNTU (MREC), Hyderabad, India.