

Anagani Syam Prakash

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Detail-oriented Computer Science graduate with a strong foundation in data engineering, proficient in Python, SQL, and data visualization. Motivated and adaptable individual eager to apply strong technical and interpersonal skills in a dynamic role within the tech industry. Committed to continuous learning, innovation, and contributing effectively to organizational success. Passion for data pipelines, optimizing database performance, and implementing machine learning models in a Data Engineer role.

RELEVANT COURSEWORK

Software Engineering | Computer Science | Computer Networks | Web-based business development | Cloud computing | Computational Foundations of AI | Theory and implementation of database systems | Artificial Intelligence | Machine Learning | Sensor Networks & smart systems.

Masters Computer Science (Graduation)

Jan 2023 - Dec 2024

Florida Atlantic University, Boca Raton, FL

GPA 3.1/4.0

Bachelor of Engineering (Under Graduation)

May 2022

Sathyabama University, India

GPA 7.9/10.0

TECHNICAL SKILLS

Business Analysis | Application Development | Continuing Education | Federal Regulations | Mobile Development | Process Automation | Software Solutions | Technology Trends | Risk Management | Ux Design | Iot |

SOFT SKILLS

Strategic Initiatives | Strategic Planning | Team Performance | Technical Solutions | Responsible | Technical Leadership | Scripting | Prioritize | Write | Problem Solving | Commitment | Confident | Influence | Fidelity | Self Management | Credentialing | Technical Team Led | Journals | Convert | Teamwork | Leading | Publish | Stem | Verbal Communication | Enthusiasm | Examine | Consistent | Reputation | Mentoring | Approach | Reflect | Typing | Speak |

TOOLS AND TECHNOLOGIES

Programming Languages: C, Python(Numpy, Pandas, Matplotlib, Seaborn)

Databases: SQL, Sql Queries, Microsoft Office(Microsoft Word, Microsoft Tools, Microsoft Excel , Ms Powerpoint Ms Word,MTM)

Visualization Tools: Microsoft PowerBi, Tableau, MS-Excel(VBA, Pivot, Vlookup, Xlookup, Macros)

Cloud & DevOps: AWS(EC2, Lambda, DynamoDB), GCP (BigQuery), Azure, Docker, Kubernetes

Big Data: Spark, Hadoop, Hive, Pig, Sqoop, Oozie

EXPERIENCE

Data Engineer – Tetra Tech .

(Jul 2023 – May 2025)

- Conducted regulatory research for environmental compliance and documented impacts on technical operations and reporting standards.
- Collaborated with legal and compliance teams to interpret state and federal guidelines affecting project approvals.
- Worked cross-functionally to assess operational risks and ensure adherence to safety and regulatory frameworks.
- Acted as liaison between compliance officers and IT staff to implement systems meeting evolving policy requirements.
- Facilitated stakeholder reviews of compliance-related changes to internal documentation and workflow systems.
- Optimized query performance and data warehouse operations within Snowflake environments.
- Ensured data integrity, troubleshooting complex data issues, and maintaining high-quality data standards.
- Supported data governance, documentation, and testing processes to comply with organizational and regulatory requirements.

Web Developer – Best Near Me - Remote.

(Jun 2023 – Apr 2024)

- Built and maintained scalable ETL pipelines using AWS Glue, Lambda, and S3 for processing large datasets with high accuracy and efficiency.
- Developed and automated cloud-based data workflows for batch and real-time processing, improving operational scalability and deployment reliability.
- Conducted integration configuration, deployment, and testing to ensure smooth data ingestion and transformation across multiple systems.
- Collaborated cross-functionally with analysts, engineers, and stakeholders to deliver actionable data insights supporting public safety and healthcare initiatives.
- Implemented data validation and anomaly detection techniques to uphold data quality and integrity.
- Used Python scripting and SQL to automate processes and optimize database performance in production environments.
- Employed container technologies like Docker for deployment and worked with cloud-hosted software environments.
- Provided mentorship and technical guidance to junior engineers, fostering team growth and knowledge sharing.

Data Engineer – Helical IT Solutions Pvt Ltd .

(Jan 2020 – Nov 2022)

- Acted as Business Analyst on regulatory compliance projects for insurance and financial service clients.
- Documented client-specific compliance workflows, including license validation and renewals, in regulatory software.
- Collaborated with product and IT teams to implement rule-based checks based on NAIC/NIPR standards.

- Conducted comparative analysis of state-wise insurance licensing requirements and integrated updates into application workflows.
- Worked closely with QA teams to validate compliance workflows for termination, background checks, and renewals.
- Challenge and engage business units to validate assumptions and support successful plan execution.
- Act as liaison between business units, technology teams, and support groups to facilitate smooth communication and process adherence.
- Proactively communicate with internal and external customers, managing expectations and providing status updates.
- Support and institutionalize best practice methodologies, including change control, user acceptance testing, training, and implementation processes.
- Serve as a conduit for requirements flow between customers and software development teams, ensuring alignment with business needs.
- Apply critical thinking skills to evaluate information from multiple sources, resolve conflicts, and clarify true user requirements.
- Conduct regular site reviews, internal testing, and daily analysis of system metrics to ensure quality and performance standards.
- Break down complex information into detailed actionable tasks and synthesize detailed data into clear summaries for stakeholders.
- Utilize strong organizational, communication, and conflict resolution skills to support project success and stakeholder satisfaction.

Data & ML Engineer – U Future Tech.

(Feb 2018- Jan 2020)

- Partnered with compliance teams to assess data and system readiness for upcoming regulatory updates in client applications.
- Researched and documented state-level data privacy and insurance guidelines applicable to client processes.
- Worked with cross-functional teams to define requirements around client-facing compliance features.
- Facilitated workshops with insurance clients to document renewal and licensing workflows for system automation.
- Conducted pricing analysis and modeled the impact of promotions and discounts on profitability.
- Created clear and effective data visualizations using Power BI, Tableau, and Domo for broad business consumption.
- Automated data workflows and reporting processes to increase efficiency and accuracy in data handling.
- Optimized database queries and data warehouse performance to ensure reliable and fast data access.
- Demonstrated strong problem-solving, analytical reasoning, and attention to detail in fast-paced, evolving environments.
- Utilized SQL, Python, ETL tools (DBT, AWS Glue), and cloud platforms (AWS, Snowflake) to develop and maintain data pipelines.
- Ensured data governance, quality, and compliance aligned with organizational standards and regulatory requirements.

PROJECTS

Healthcare Cost Optimization and Patient Outcome Analysis Using Real-World Claims Data:

- Analyzed regulatory compliance requirements (HIPAA, CMS) in the processing and analysis of claims data.
- Worked with legal and clinical teams to ensure that patient data usage aligned with state and federal healthcare laws.
- Researched and documented changes in reimbursement regulations and their implications on predictive analytics models.
- Built compliance rule sets for identifying anomalies in billing, claims submission, and authorization workflows.
- Facilitated cross-functional sessions to define compliance checkpoints in data ingestion and reporting pipelines.
- Ensured secure handling of sensitive PHI/PII data by implementing best practices within cloud data environments.
- Supported continuous pipeline and report optimization through user acceptance testing and stakeholder feedback.

E-Commerce Product Recommendation System:

- Designed and implemented a collaborative filtering-based recommendation system for an e-commerce platform.
- Ingested large-scale product transaction data from MySQL into HDFS using Sqoop.
- Processed and cleaned data using Spark and Hive, ensuring structured storage.
- Developed a Recommendation Model using Spark MLlib (Collaborative Filtering - ALS).
- Built a REST API using Flask to serve personalized product recommendations to users.
- Integrated the system with Tableau to visualize customer preferences and product trends.

Financial Analytics System for Profit and Loss Management :

- I developed a database system to monitor and analyze a company's financial performance. We created structured tables for accounts (revenue and expenses).
- Your Financial Analytics System effectively uses structured databases and advanced SQL queries to track profit, expenses, and revenue trends, making it a robust financial analysis tool.
- Enhancing it with Power BI dashboards for real-time visualization, including dynamic KPIs, drill-down reports, and trend forecasting, can improve decision-making.
- Consider adding automation via scheduled stored procedures, predictive analytics (ARIMA, ML models for forecasting), and integration with cloud databases (Azure, AWS RDS) for scalability and real-time insights.

Scalable Video Streaming Platform Using AWS and CloudFront

- In order to provide safe storage, adaptive streaming, and worldwide scalability, your scalable video streaming platform efficiently makes use of AWS services (S3, MediaConvert, CloudFront, and Elastic Load Balancer).
- Performance and cost effectiveness can be further maximized by enhancing it with AWS Lambda for serverless processing, DynamoDB for metadata storage, and Auto Scaling for dynamic resource allocation.
- To make the platform more intelligent, responsive, and user-focused, think about including AI-based video recommendations, real-time analytics with Amazon Kinesis, and edge computing for ultra-low latency.

Sales Performance Dashboard in Power BI

- Top Product Contribution: Identified that the top 10 products contributed to 60% of total revenue, with an average sales growth of 15% month-over-month. Focusing marketing efforts on these test products could increase overall revenue by 10%.
- Regional Sales Disparity: Analysis showed that the West region underperformed by 20% compared to other regions, with a declining sales trend. Redirecting resources and sales strategies to this region could boost sales by 12%.
- Customer Segment Profitability: Discovered that premium customers, though only 30% of the customer base, accounted for 55% of total profits. Targeting similar high-value segments could increase profit margins by 8%..

Social Media Crime Detection using Machine Learning :

- My project focused on Crime Detection in Social Media using natural language processing and machine learning. The goal was to identify and classify potential crime-related content from social media posts, such as hate speech, harassment, or threats.

- Using TF-IDF and models like Random Forest, Gradient Boosting, and Logistic Regression, your project successfully uses NLP and ML for crime detection
- Accuracy and contextual comprehension can be increased by enhancing it with deep learning (BERT, LSTMs), real-time data (Twitter API), and feature engineering (Word2Vec, NER).
- It can be made more effective and scalable by including imbalanced data processing (SMOTE), multi-class categorization (hate speech, threats, cyberbullying), and deployment via Flask/FastAPI.