CHARLES GEORGE

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DATA PRACTITIONER | DATA SCIENCE | DATA ENGINEERING | ANALYTICS

Results-driven data professional with 10+ years of experience in data science, engineering, and analytics. Adept at developing and optimizing data workflows, automating processes, and building scalable AI-driven solutions. Proven expertise in machine learning, cloud computing, data visualization, and pipeline development. Passionate about transforming complex datasets into actionable insights to drive business and operational success.

PROFESSIONAL EXPERIENCE

Senior Data Practitioner | Data Science & Engineering
National Heart Lung and Blood Institute (HHS>NIH>NHLBI) | Bethesda, MD
May 2024 – Present

- Developed and optimized large-scale data pipelines for workforce and budget analytics, improving efficiency and reducing processing time.
- Built machine learning models to enhance workforce planning accuracy, increasing position categorization precision by 15% and automating salary ceiling analysis.
- Designed and deployed API-driven geospatial analysis tools, cutting down processing time from 30 hours to under 15 minutes by optimizing data retrieval and API interactions.
- Created dynamic dashboards and visualizations for leadership, facilitating strategic decision-making in workforce planning and budgeting.

Senior Data Scientist | Data Engineering & AI Solutions
ECS Federal | Bethesda, MD
March 2020 – May 2024

- Built a Python-powered AI-driven financial forecasting tool, reducing budget analysis turnaround from 6–8 weeks to under a week.
- Led NLP initiatives to automate grant text analysis, streamlining research funding evaluations.
- Developed automated workforce analytics dashboards, transforming raw data into interactive, real-time insights for leadership.
- Engineered a scalable API framework to support data-driven decision-making across multiple NIH divisions.

KEY PROJECTS & ACHIEVEMENTS

- **Data Pipeline Optimization:** Designed robust ETL processes integrating multiple APIs and databases, reducing data ingestion time while maintaining compliance with API rate limits.
- **Generative AI & NLP Applications:** Created an AI-powered resume optimization tool using OpenAI GPT and Streamlit, hosted on **Streamlit Community Cloud** with automated GitHub CI/CD deployments.
- **Geospatial Analysis & Workforce Planning:** Built a large-scale commuting logistics analysis tool, evaluating over 6,000 locations and optimizing remote/hybrid work planning.
- **Interactive Data Dashboards:** Developed executive reporting tools with **Power BI, Looker, Streamlit, and Plotly Dash**, enhancing decision-making for large-scale workforce and financial strategy.
- **AI Model Deployment & Automation:** Designed **Flask-based API solutions** for machine learning model deployment, integrating AI insights into operational workflows.

EDUCATION & CERTIFICATIONS

- **Data Science Certificate,** Thinkful (Jan 2020)
- **B.S. Communications,** Pensacola Christian College (2010)
- **AI-900 Microsoft Azure AI Fundamentals**
- **AWS Certified Cloud Practitioner** (2021 - 2024)
- **Certified ScrumMaster (CSM)** (2020 - 2024)

TOOLS, & TECHNOLOGIES

- **Programming:** Python (Pandas, NumPy, Scikit-learn), SQL
- **Data Engineering:** ETL, API Integration, Database Management
- **Data Visualization:** Plotly, Power BI, Qlik Sense, Looker
- **Cloud & DevOps:** AWS, Azure, GCP, Docker, FastAPI, CI/CD Pipelines
- **Project Management:** Agile, Jira, Confluence, GitHub