

CHARLES GEORGE

📍 Woodbridge, VA

in /in/cgdesigned

👤 Summary

As a Data Scientist and Python Developer, I lead teams of 3-4 data scientists in the design, development, deployment, and refinement of rapid prototyped automation solutions and analytics data products. Proficient in handling complex financial and workforce datasets at a gigabyte scale, I extract valuable insights and specialize in custom data visualization and user interface design. With a proven track record of presenting data effectively to diverse audiences, from front-line employees to executive leadership, I continuously advance my expertise by embracing new technologies and methodologies. Additionally, my strong project management skills ensure the seamless planning, execution, and delivery of data science projects, aligning with organizational objectives.

📁 Experience

ECS Federal

Lead Data Scientist,

Analytics, Automation & Artificial Intelligence (A3)

Manager Oct 2023 – Present

Senior Consultant Mar 2022 – Oct 2023

Consultant II Jul 2021 – Mar 2022

Consultant Mar 2020 – Jul 2021

- Spearheaded the development of the Automated Fiscal Monitoring (AFM) tool, a Python-powered analytical web application. This tool, built using Dash prevents funding goal overruns for Percentiled R01's (prestigious research project grants), offering early detection when actuals deviate from projections.
- Led an inter-institute code transfer project for predicting Clinical Trial grant applications using Natural Language Processing (NLP), reducing the need for manual review by 90%.
- Revolutionized the Program Officer Workload analysis process, condensing it from 6-8 weeks, down to less than a week. Now, this analysis is completed in mere minutes, enhancing personnel strategy with 350+ visuals and 100+ summary data tables.
- Developed supervised machine learning models using scikit-learn such as Ordinary least squares Linear Regression and random forest classifier, that improved budget and workforce forecasting by reducing error rates to near-zero and enabling more precise payroll predictions based on different scenarios.
- Created custom interactive data visuals, such as multi-trace plots, threshold overlays, and even a Sankey diagram template for use in tracking Career Progression.
- Introduced automation that shortened the Personnel Review Data Book (PRDB) preparation process from a manual, multi-system operation to a streamlined workflow, delivering essential data to Institute leadership in record time.
- Pioneered the Programming and Execution Tracking Module (PET) analytical web app, allowing Institute leadership to track spend and commitments against budget allocations by strategic categories. This reduced manual effort by 99%.
- Designed an automation library utilizing JupyterHub and JupyterLab, enabling data analysts to significantly enhance their efficiency. Additionally, crafted a Python budget update library featuring functions that transformed time-consuming manual processes into operations executed in milliseconds, resulting in improved data quality for upcoming projects.

American Media Source

Database Admin / Analyst

Oct 2019 – Mar 2020

- Automated data ingest and migration to Google Cloud Platform, reducing data transfer time by 91%.
- Developed Python scripts and implemented dashboards that allowed tracking of client financial metrics, resulting in a 66% improvement in performance monitoring.
- Led training in Jupyter Notebooks, improving team productivity.

American Target Advertising

Digital Marketing Data Analyst

Aug 2018 – Oct 2019

- Enhanced data management by introducing automation through Python, decreasing manual efforts by 40%.
- Developed a workflow automation system that reduced project request response times by 75%.
- Collaborated with the Development Team to create API solutions, improving data access and segmentation for personalized customer interactions.

FFC Properties LLC

Field Supervisor

Sep 2012 – Aug 2018

- Designed, developed, and implemented a property database, streamlining operational data tracking and renovation status updates.
- Created a field data collection form that improved data collection accuracy by 25%.

May 2010 – Sep 2012

Held various positions including Graphic Designer, Sign Designer/Installer, Web Developer, Part-Time Art Teacher & Publication Specialist.

Education & Training

B.S. in Communications

Pensacola Christian College

Completed in 2010

Remote Data Science Program

Jan 2020 | Thinkful

Intensive 6-month online data science course with a commitment of 20-30 hours per week, tailored to help launch a career in this advanced field. Received one-on-one mentorship from a patent-producing Senior Data Scientist Leader from USAA with over 11 years of experience.

Microsoft Azure AI Fundamentals

Oct 2022 | Microsoft

Provided a solid foundation in AI, hands-on experience with Azure AI services, and a clear understanding of how to harness AI capabilities responsibly in various contexts.

Python Certificate

May 2019 | codecademy

9-week professional intensive curriculum on Python fundamentals that set you up to work in web development and machine learning through the understanding of software architecture, code reuse and readability, computer science concepts, and Python syntax

Web Development Certificate

Oct 2018 | codecademy

10-week professional intensive curriculum of web development fundamentals using HTML, CSS, Javascript, and Github

Certifications

AWS Certified Cloud Practitioner

Sep 2021-2024 | Amazon Web Services

Certified ScrumMaster

Aug 2020-2024 | Scrum Alliance

Skills / Packages

Data Science & Machine Learning

- Data Cleaning
- Data Management
- JupyterHub
- JupyterLab
- Jupyter Notebook
- Azure Data Studio
- Feature Engineering
- PDF Scraping
- Web Scraping
- Data Analysis
- Data Visualization
- Pandas
- Numpy
- Scikit-Learn
- Statsmodels
- SciPy
- XLSXWriter
- Selenium

Data Visualization & Tools

- Power BI
- Google Looker Studio
- Qlik Sense
- Plotly & Dash
- Streamlit
- Matplotlib / Seaborn

Programming / Scripting

- Python
- HTML
- CSS
- PostgreSQL
- MySQL
- Oracle
- NoSQL

Cloud

- AWS
- Azure
- GCP

Business & Productivity

- Excel
- Power Automate
- Visio
- SharePoint

Awards

3 Commendations between 2021 and 2022
For outstanding performance & innovation