Trenton McKinney

Data Analyst | Data Scientist | Python Ingest Automation

Contact Information

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Summary

Experienced Data Analyst and Data Scientist with over a decade of experience specializing in electrical hardware testing automation and data analytics. Proficient in Python, with a solid background in data collection, wrangling, analysis, and visualization. Demonstrated expertise in SQL, JupyterLab, Pandas, and various data visualization tools. Proven ability to manage large datasets, develop Jupyter Notebooks for complex data projects, and provide data-driven insights.

Skills

- **Programming Languages**: Python
- **Data Analysis and Science Tools**: Jupyter Lab, Pandas, Matplotlib, NumPy, SQLAlchemy
- **Data Visualization**: Matplotlib, Bokeh, Seaborn, Tableau, Power BI
- **IDEs and Tools**: JetBrains PyCharm, GitHub, Copilot
- **Machine Learning Libraries**: scikit-learn, numpy
- **Database Management**: SQL, MySQL, PostgreSQL, Microsoft SQL Server, ETL processes
- **Programming Concepts**: Object-Oriented Programming (OOP)
- **Mathematical Skills**: Statistics, Linear Algebra, Calculus, Differential Equations
- **Data Preparation**: Data Munging, Data Cleaning
- **Microsoft Office Suite**: Proficient in Excel (including Power Query, Power Pivot, DAX), Word, PowerPoint, Outlook
- **Critical Thinking**: Proficient in employing logical reasoning and analytical skills to break down complex problems, leading to data-driven decision making.
- **Problem-Solving**: Skilled at identifying issues and implementing effective solutions promptly.

Education

- Bachelor of Science in Electrical Engineering, Portland State University, Portland, Oregon

Work Experience

Contract Data Analyst III, Space Telescope Science Institute, Baltimore, MD January 2022 – September 2022

- Python data ingest automation to build new SQL tables for Hubble Advanced Products (HAP) from FITS files.
- Created Jupyter Notebooks for Hubble telescope observation mission data.

Freelance Data Analyst, Codementor.io, Remote January 2021 – December 2021

- Provided on-demand mentoring, code review, and long-term coding services related to data analysis and data science in the python ecosystem.
- Profile: https://www.codementor.io/@trentonmckinney

Contract Data Analyst, Intel, Hillsboro, OR April 2021 – June 2021

- API usage and web scraping with python to collect cloud service cluster pricing data, and cross reference the data to specific Intel ICs for market value estimates.
- Stored tables in PostgreSQL using pandas with SQLAlchemy.

Contract Project Data Analyst, Intel, Hillsboro, OR February 2019 – July 2019

- Used python to deploy a Flask application to serve aggregated hardware debugging data from multiple XML files.

Contract Hardware Validation Engineer, Intel, Hillsboro, OR April 2017 – October 2018

- Wrote hardware test plans and implemented data analysis automation with python for Ethernet network cards.

Certifications

- **Power BI**: Introduction to DAX in Power BI | Introduction to Power BI | Data Visualization in Power BI
- **Python Programming & Data Science**: Udacity Data Analyst Nanodegree | Data Scientist with Python | Python Programmer Track | Intermediate Python for Data Science | Introduction to Python for Finance | pandas Foundations | Cleaning Data in Python | Python Data Science Toolbox (Parts 1 & 2)
- **Machine Learning & Data Analysis**: Case Study: School Budgeting with Machine Learning in Python | Introduction to Deep Learning in Python | Unsupervised Learning in Python | Supervised Learning with scikit-learn | Statistical Thinking in Python (Parts 1 & 2) | Machine Learning
- **Data Visualization**: Introduction to Data Visualization in Python | Interactive Data Visualization with Bokeh | DAT206x: Analyzing and Visualizing Data with Excel
- **SQL & Databases**: Introduction to Relational Databases in SQL | Joining Data in SQL | Intro to SQL for Data Science | Introduction to Databases in Python | Manipulating DataFrames with pandas | Merging DataFrames with pandas | Using Databases with Python
- **Specialized Topics**: Working with the OpenAI API | Fraud Detection with Python | Introduction to Network Analysis in Python | Introduction to Big Data | Importing Data in Python (Parts 1 & 2) | Using Python to Access Web Data | Python Data Structures

Volunteer Experience

- **Stack Overflow Volunteer Contributor**
  - https://stackoverflow.com/users/7758804/trenton-mckinney
  - Dedicated over 6000 hours contributing to Stack Overflow, showcasing a commitment to supporting and educating the developer community through expert advice and guidance.
  - Provided custom coding solutions, enhancing the knowledge base for a global community of developers.
  - Achieved a reputation of >59k, ranking in the top 0.09% of ranked users, demonstrating high levels of expertise and community trust.
  - Awarded Gold Badges in Python (809 awarded), pandas (82 awarded), matplotlib (18 awarded), and seaborn (5 awarded), reflecting specialization and significant contributions in these areas.
  - Curated existing questions and answers to improve clarity and usefulness for the community.
  - Enhanced contributions by adding reproducible data, visualizations, updating code, and providing detailed code explanations, ensuring high-quality and accessible content.

Projects & Code Examples

- **1537 coding examples** related to:
  - https://stackoverflow.com/users/7758804/trenton-mckinney?tab=answers
  - **Python**: The foundational programming language for data analysts, and data scientists.
  - **Pandas**: Key library for data manipulation and analysis.
  - **Matplotlib/Seaborn**: Primary tools for data visualization.
  - **Machine Learning (scikit-learn, regression, etc.)**: Essential for predictive modeling and analytics.
  - **SQL/Dataframe Operations**: For data retrieval and manipulation.
  - **Time-Series Analysis**: Important for temporal data analysis.
  - **Statistical Analysis (numpy, scipy, etc.)**: For hypothesis testing and data exploration.
  - **Data Cleaning (missing-data, data munging)**: Crucial for preparing accurate analyses.
  - **Advanced Visualization (bar, scatter, line, etc.)**: Techniques for complex data representation.
- **Excel Automation with Python**: https://github.com/trenton3983/Excel_Automation_with_Python