Alexander Julian Crabtree

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EDUCATION

TEXAS A&M UNIVERSITY, College Station, TX   Aug. 2017 – May 2021
Bachelor of Science in Mathematics

- Dual Minors in Physics and Astrophysics

JOHNS HOPKINS UNIVERSITY, Baltimore, MD   Jan. 2024 – Present
Masters of Science in Applied Physics

PROFESSIONAL EXPERIENCE

LONE STAR ANALYSIS, Addison, TX   Feb. 2023 – Present
Data Analyst

- Engineered predictive models to forecast customer operational performance, deepening insights derived from diverse data sources.
- Coded data pipelines in Python and SQL, optimizing for enhanced data management, transformation, and loading across diverse customer projects.
- Iterated upon data pipelines to build out robust and scalable data workflows by applying data science methodologies.
- Produced actionable business intelligence by leveraging data analysis techniques (Monte Carlo Simulations, Trend Analysis, Cross-Tabulations, etc).
- Coordinated with associates to define best practices to ensure standardization and flexibility of data pipelines, models, and cloud solutions.
- Visualized performance metrics with Power BI dashboards and PowerPoint reports that distilled complex concepts and brought value to stakeholders.
- Guided junior analysts to customer deliverables by setting strategic goals and providing technical mentorship.

LONE STAR ANALYSIS, Addison, TX   Jun. 2022 – Feb. 2023
Associate Data Analyst

- Partnered with senior analysts in assembling mathematical models through the preparation of datasets to be ingested by ETL data pipelines.
- Debugged and refined Python ETL scripts in data pipelines to flexibly meet diverse business needs.
- Ascertained operational needs of customers to assist senior analyst with the enhancement of mathematical models to address customer challenges.
- Implemented Power BI to iterate upon dashboards to provide compelling visuals of diverse operational metrics that brought actionable insights to customer deliverables.

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EDUCATION ONE, Frisco, TX   Sep. 2021 – May 2022
Physics and Mathematics Tutor

- Tutored small groups in Mathematics, Physics, and English, fostering a deep understanding of these subjects.
- Created comprehensive learning packets to enhance student comprehension in Physics, Mathematics, and English.
- Provided detailed feedback on student work and assisted with SAT/ACT preparation.

TEXAS A&M AGGIENOVA, College Station, TX   Aug. 2020 – Jul. 2021
Research Analyst

- Designed Python scripts that utilized BeautifulSoup and Pandas for web scraping and data manipulation from astronomical databases.
- Streamlined the SOUSA website through HTML/CSS development, ensuring accurate data updates.
- Leveraged Python and the SOUSA database to build a Plotly dashboard, showcasing UVOT filter light curves and color diagrams.
- Collaborated with a 4-member team on joint projects, using GitHub for efficient coordination.

SKILLS & CERTIFICATES

Languages: Python | SQL | HTML | CSS | VBA
Data Visualization Tools: Power BI | Plotly | Matplotlib
Platform & Tools: Microsoft Office | JSON | Git/GitHub/GitLab | PyCharm | VSC | Sharepoint | PostgresSQL
Certificates: IBM Data Analyst Professional