

# Alexander Julian Crabtree

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(936) 242-5280 • alexcrabt21@gmail.com • <https://alexcrabt.github.io/Portfolio/>

## 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*

## SKILLS & CERTIFICATES

**Skills:** Data Visualization | Data Cleaning | Mathematical Modeling | Excel | PBI

**Programs/Tools:** Microsoft Office | PBI | JSON | Git/GitHub/GitLab | PyCharm | VSC | Sharepoint

**Languages:** Python | SQL | HTML | CSS | VBA

**Certificates:** IBM Data Analyst Professional

## PROFESSIONAL EXPERIENCE

**LONE STAR ANALYSIS**, Addison, TX

Aug. 2023 – Present

*Lead Data Analyst*

- Developed queries, models, and reporting dashboards to optimize data retrieval, analysis, and visualization, thereby empowering customer engagement through personalized insights and tailored experiences.
- Implemented data science frameworks, methodologies, and best practices into data workflows to ensure consistency, scalability, and repeatability of client products.
- Directed a team in the development of customer projects, setting clear objectives and implementing strategic guidelines to ensure alignment with business goals.
- Provided technical guidance and mentorship to junior analysts, fostering a culture of continuous learning and professional development.
- Employed data pipelines to forecast customer performance, offering insights into root causes and pragmatic solutions.

**LONE STAR ANALYSIS**, Addison, TX

Feb. 2023 – Aug. 2023

*Data Analyst*

- Applied data science approaches alongside advanced modeling skills to synthesize quantitative data, identifying trends, insights, and actionable strategies that elevate customer decision-making processes.
- Planned expansions to mathematical models to address client problems by understanding business and analytic requirements.
- Used Excel, PowerBI, and data pipelines to integrate disparate data, enabling comprehensive analyses and practical understandings.
- Guided Junior Analysts in data preparation tasks to support analyses, ensuring accuracy, consistency, and completeness of the data.
- Partnered with teammates to develop efficient Python and SQL Queries that improved data workflows.

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## **LONE STAR ANALYSIS**, Addison, TX

Jun. 2022 – Feb. 2023

### *Associate Data Analyst*

- Collaborated with senior analysts to extract, manipulate, and prepare datasets to use as inputs in powerful mathematical models.
- Assisted in creating visually engaging presentations and reporting dashboards in PowerPoint (PPT) and PowerBI (PBI), distilling complex concepts to better customer comprehension and insight.
- Ensured efficient management of large datasets from mathematical models by maintaining and expanding data pipelines to better ingest, process, and analyze that data.
- Built upon existing models to solve customer problems, while cultivating their understanding of those models.

## **EDUCATION ONE**, Frisco, TX

Sep. 2021 – May 2022

### *Physics and Mathematics Tutor*

- Instructed small groups of up to 3 students in Mathematics, Physics, and English.
- Developed comprehensive packets for Physics, Mathematics, and English to improve student understanding.
- Evaluated and provided feedback on student worksheets.
- Assisted students in SAT/ACT preparation by tutoring essential subjects.

## **TEXAS A&M AGGIENOVA**, College Station, TX

Aug. 2020 – Jul. 2021

### *Research Assistant*

- Designed Python scripts using BeautifulSoup and Pandas for web scraping and data manipulation from astronomical databases.
- Enhanced the SOUSA website through the development of HTML/CSS scripts for data updates and refinement.
- Utilized Python scripts and the SOUSA database to create a Plotly dashboard featuring UVOT filter light curve, color light curve, and color-color diagrams.
- Collaborated efficiently with a 4-member team on joint projects, utilizing GitHub for seamless coordination.