

# Alexander Julian Crabtree

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(936) 242- 5280 • [acrabtree15@gmail.com](mailto:acrabtree15@gmail.com) • <https://alexcrabt.github.io/Portfolio/>

## EDUCATION

**TEXAS A&M UNIVERSITY**, College Station, Texas

Aug. 2017 – May 2021

Bachelor of Science in Mathematics

- Minors in Physics and Astrophysics
- Cumulative GPA: 3.326/4.00

## RESEARCH EXPERIENCE

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

Aug. 2020 – Sep. 2021

*Research Assistant*

- Developed Python scripts that made use of libraries, such as BeautifulSoup, to web scrape and manipulate data from astronomical databases.
- Progressed the SOUSA website by developing HTML/CSS scripts to update and refine the data stored there. See <https://pbrown801.github.io/SOUSA/>
- Utilized the Swift Optical/Ultraviolet Supernova Archive (SOUSA) data with Python scripts to create interactive UVOT filter light curve, color light curve, and color-color diagrams. See <https://alexcrabt.pythonanywhere.com/>
- Coordinated effectively with a team of 4 on joint projects utilizing GitHub.

## EDUCATION EXPERIENCE

**EDUCATION ONE**, Frisco, TX

Sep. 2021 – Present

*Physics and Mathematics Tutor*

- Taught students in a group of up to 3 in areas of Mathematics, Physics, and English.
- Created Physics and Mathematics packets to aid in enhancing students' comprehension.
- Graded worksheets given to students while providing feedback.
- Aided students in preparation for the SAT/ACT tests through the tutoring of vital subjects.

## POSTER PRESENTATIONS

**Alexander C**, Landon H, Mahir P, Emily S. AGGIENOVA Templates. Poster presented at Student Research Week, Texas A&M University; 2021 March 21 – 24; College Station, TX.

**Alexander C**, Jack P, Macie R, Emily S. AGGIENOVA: Supernova Explosions. Presented at Texas A&M Astrosymposium 2021, Texas A&M University; 2021 August 27; College Station TX.

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## **HONORS AND AWARDS**

### **DEANS HONOR ROLL**

TEXAS A&M UNIVERSITY

Spring 2019, Fall 2020 – Spring 2021

### **AGGIE RESEARCH SCHOLAR**

TEXAS A&M UNIVERSITY, AGGIE RESEARCH PROGRAMS

For completing research with the AGGIENOVA: Supernovae Explosions group as part of the Aggie Research Scholar Program in Spring 2021.

## **TECHNICAL SKILLS**

### **Tools**

MS Visual Studio | Github | TEXstudio | Microsoft Office Programs

### **Languages**

Python | IRAF | HTML | CSS | LaTeX

## **ANALYTICAL SKILLS**

Inductive & Deductive Reasoning | Critical Thinking | Problem Solving | Data Collection | Data Analysis/Visualization | Interpreting Results

## **SOFT SKILLS**

Attention to Detail | Self-Learner | Time Management | Teamwork | Communication | Confident