

Jasper Barnett

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EDUCATION

Rensselaer Polytechnic Institute, Troy, New York, USA

- B.S. in Physics expected Spring 2020 Aug 2017 – Present
 - Current GPA: 3.77/4.0 – Dean's Honor List (2/2 semesters)
 - Relevant Coursework: Quantum Physics 1&2; Particle Astrophysics; Observational Astronomy; Theoretical Mechanics; Experimental Physics; Electromagnetic Theory

Thomas Jefferson HS for Science and Technology, Alexandria, Virginia, USA

- Advanced Diploma Sep 2013 – Jun 2017
 - Cumulative GPA: 3.7 / 4.0

RESEARCH EXPERIENCE

Astronomy & Astrophysics Lab, Thomas Jefferson HS for Science and Technology

- Independent Senior Research Project Sep 2016 – Jun 2017
 - Project: Analysis of Kepler Data for the Purpose of Identifying Abnormal Light Curves
 - Advisor: LeeAnn Hennig
 - Focus: Astrophysical data acquisition, parsing, and analysis using MatLab and Python

Blair Lab, Georgetown University

- Summer Research Internship Jun 2016 – Aug 2016
 - Project: Analysis of granular jetting phenomena
 - Advisor: Prof. Daniel Blair
 - Focus: Experimental design, high-speed imaging and video analysis using Python, MatLab, and proprietary software

WORK EXPERIENCE

IPersist Mentor, Rensselaer Polytechnic Institute

- Honors Physics 1 Mentor May 2018 – Present
 - Selected by physics professors to mentor incoming freshmen
 - Develop and execute lesson plans during two weekly mentoring sessions to reinforce material from lecture
 - Hold two weekly office hours to help students with assignments and assessment preparation.

Introduction to Astronomy and Astrophysics, Rensselaer Polytechnic Institute

- Undergraduate Facilitator (Undergrad TA) Aug 2018 – Present
 - Assist the professor with in-class instruction and assignments, and ensure smooth operation of interactive classroom activities and labs.
 - Hold two weekly office hours to help students with assignments and assessment preparation.

CLUBS AND ACTIVITIES

Rensselaer Rocket Society, Rensselaer Polytechnic Institute

- Captain - Battle of the Rockets; Vehicle Team - NASA Student Launch Sep 2017 – Present
 - Lead a diverse team of students through rapid production, documentation, testing, and deployment of designs to complete a challenge
 - Lead the writing, editing, and presenting of reports to various professional groups (including NASA engineers) on system development

TJ Physics Team, Thomas Jefferson HS for Science and Technology

- Co-Captain and Presenter Sep 2014 – Jun 2017
 - Work with other Physics Team officers to plan meetings, events, and contests
 - Prepare and present weekly lectures on topics in physics, ranging from introductory physics through post-AP and modern physics
 - Prepare problem sets and solutions based on team lectures and coursework

SKILLS

AutoCad, Solidworks, \LaTeX , Python, Java, Arduino, MATLAB, Wood Fabrication, Basic Metal Fabrication, Composite Manufacturing, Rapid Prototyping (laser cutting and 3D printing), Model Rocketry (NAR #95387, HPR L2 certified)