

Tess Kleanthous

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EDUCATION

Tufts University

Master of Science in Physics: Astrophysics
Cumulative GPA: 4.00

New Orleans, LA
Jun 2026

Tulane University

Bachelor of Science in Engineering, Certificate in Computational Engineering
Major: Engineering Physics, Minor: French
Cumulative GPA: 3.67

New Orleans, LA
Aug 2023

Harvard University Extension School

Intensive Introduction to Computer Science
Data Mining, Discovery, and Exploration

Virtual
Jun 2022 – Aug 2022
Jun 2023 – Aug 2023

Other Coursework: Greek (Preply, Nov 2023 – present), French (Preply, Nov 2024 – present), Spanish (Preply, July 2025 – present)

AWARDS AND HONORS

Tufts University Merit Scholarship (33% of Tuition)
Tulane University Merit Scholarship (\$30,000 per year)
Tulane University Dean's List (Fall 2019, Spring 2020, Fall 2022, Spring 2023)
Tulane University Leadership Medallion (2023)
The William F. Tompkins Jr. Memorial Award (2023)

WORK/RESEARCH EXPERIENCE

Tufts University

Principal Investigator (PI) and Graduate Research Assistant

Medford, MA
Sep 2024 – present

- Project Title: A Robust Pipeline for TESS Eclipsing Binaries: Detrending, Period Validation, Eclipse Modeling, and Vetting
- Supervisor: David Martin
- Optimized Stanley algorithm to analyze photometric data from the Transiting Exoplanet Survey Satellite (TESS) in order to perform a systematic, automated search for circumbinary planets (CBPs)
- **PUBLICATIONS:** Lead author on a manuscript describing the pipeline – to be submitted for peer-reviewed publication

Graduate Teaching Assistant

Sep 2024 – May 2025

- Assisted the following courses: Intermediate Mechanics (Jan – May 2025) and Wanderers in Space: Exploration & Discovery (Sep – Dec 2024)
- Attend courses regularly and aid groups from 30 – 100+ students in their coursework
- Answer student questions, host weekly office hours, and grade projects and exams

Lockheed Martin - Space
Software Engineer Associate

Littleton, CO
Sep 2023 – May 2024

- Built in-house analytical tools used for mission processing as a full-stack developer
- Designed and implemented a satellite modeling module incorporating circular restricted three-body dynamics
- Languages used: C++ and Javascript

Systems Engineer Intern

Jun 2023 – Aug 2023

- Designed a framework for a global mesh satellite network to support research and development initiatives

Newcomb Tulane Institute's Technology Lab
Developer Intern

New Orleans, LA
Aug 2022 – May 2023

- Worked in an agile scrum framework to develop the digital humanities and scholarship projects of Tulane faculty
- Projects required digital archiving, web design, database development, graphic design, UX/UI, and AV editing

Tulane MakerSpace
Fabrication Technician

New Orleans, LA
Jun 2022 – May 2023

- Educated Tulane students and faculty about use of 3D printers, laser cutters, wood shop tools, and metal shop tools
- Conducted Metal I Training
- Instructed beginner makers on how to use Inkscape, Epilog Engraver, Cura, and Fusion 360

PROFESSIONAL AFFILIATIONS/ORGANIZATIONAL INVOLVEMENT

Tufts' Graduate Physics & Astronomy Student Society
Member

Medford, MA
Sep 2024 – present

- Attend meetings to discuss program progression with other graduate students

Order of the Engineer
Member

New Orleans, MA
May 2023 – present

- Inducted into the Order of the Engineer upon completion of undergraduate coursework
- The Order of the Engineer is an association for graduate and professional engineers that is devoted to upholding the standards and dignity of the engineering profession

Nu Epsilon Chapter of Theta Tau, Professional Engineering Fraternity
Professional Development Chairman
Academics Chairman
Member

New Orleans, LA
Jul 2022 – Jun 2023
Jan 2022 – May 2022
Feb 2021 – Jun 2023

- Elected to Academics Chair and Professional Development Chair positions by fraternity of 100+ brothers
- Organized events that focused on the academic and professional development of members
- Spearheaded committees of 3–7 people that facilitated events

Tulane Chapter of Society of Women Engineers

Executive Board Member, Treasurer

Member

New Orleans, LA

Aug 2022 – Jun 2023

Feb 2021 – Jun 2023

- Elected to Treasurer position by a society of 15+ members
 - Spearheaded sponsor coordination, fund allocation, as well as grant application for the group
 - Worked with Executive Board to provide insightful and inclusive learning experiences to women in STEM
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DESIGN WORK

HeartFelt, Senior Capstone at Tulane University

- Facilitated the first capstone collaboration between Tulane's Engineering Physics and Biomedical Engineering Department
- Integrated a haptic feedback system with standard operating room equipment used during cardiac catheterization
- Collaborated with professionals at Mount Sinai Hospital to ensure proper implementation of tool

Music Performance Systems Final Project

- Designed and prototyped a laser-based instrument used to produce electronic music
- Implemented knowledge of woodworking, circuitry, and pure data to perform a piece composed of different sequencers, synthesizers, and samples

Traverse, Intensive Introduction to Computer Science at Harvard University Extension School

- Created a web-based application for frequent travelers using Python, SQLite, HTML, CSS, and JavaScript
- Focused on front-end, back-end, and database development of the social media platform to build a login system, profile design capabilities, feed, and message board

Kinesthet-X, Product & Experimental Design at Tulane University

- In a team of 3, designed and constructed a fully functioning laser-projected physical therapy instrument for the purpose of alleviating muscle strain in patients with musculoskeletal disorders
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COMMUNITY SERVICE INVOLVEMENT

- Letters to a Pre-Scientist – Wrote letters to a “pre-scientist” throughout their school year to encourage academic growth and foster a good relationship with STEM
 - Biomedical Engineering Team Design – Built training wheelchairs for children in order to prepare them for use of larger, heavier wheelchairs throughout their growth
 - Theta Tau Community Service – Attended events at Second Harvest Food Bank, Glass Half Full NOLA, and Green Light New Orleans
 - Education in a Diverse Society at Catholic Charities Archdiocese of New Orleans – Assisted and led English as a Second Language classes
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WORKSHOPS, CONFERENCES, AND SEMINARS

Tufts' Student Accessibility & Academic Resources Graduate Writing Retreat (in-person, 2025)
Tufts' Astronomy and Physics Colloquium (weekly, in-person, Sep 2024 – present)
Tufts' Astronomy Paper Discussion (weekly, student-led, in-person, Sep 2024 – present)
Society of Women Engineers Conference (virtual: 2022, in-person: 2023, 2025)
Grace Hopper Conference (virtual, 2023)
Johnson & Johnson Root Cause Analysis Workshop (virtual, 2021)

SKILLS

Technical: Epilogue Engraver, 3D Printing

Software: MATLAB, C++, C, Python, Java, JavaScript, HTML, CSS, Inkscape, Cura, Fusion 360, Google Suite, Adobe Suite, Microsoft Office, Cameo Systems Modeler

Language: English (Native), French (Intermediate), Greek (Beginner), Spanish (Beginner)

Arts: Acrylic Painting, Oil Painting, Ceramic Sculpting, Procreate, Paint 3D