

## Mahlet Shiferaw

[mshiferaw@college.harvard.edu](mailto:mshiferaw@college.harvard.edu)

<https://www.linkedin.com/in/mahlet-shiferaw-57458abb/>

442 Eliot Mail Center  
Cambridge, MA 02138

### Education

#### HARVARD COLLEGE

Cambridge, MA

A.B. in Astrophysics, Major GPA: 3.93/4.0, Cumulative GPA: 3.96/4.0

May 2020

Relevant Coursework: Physics (Mechanics and Relativity, Electromagnetism and Statistics), Astronomy (Stellar and Planetary, Galactic and Extragalactic, Cosmology), Mathematics (Multivariable Calculus, Linear Algebra and Differential Equations), Computer Science.

Term Honor: Harvard College Scholar.

#### BOSTON LATIN SCHOOL

Boston, MA

GPA: 4.44. SAT: CR:780 M:760 W:800.

May 2016

Awards and Honors: National Merit Semifinalist. AP Scholar with Honor. Boston Latin School Societas. National Honor Society. National Latin Exam, *maxima cum laude*. National German Exam, Gold.

### Technical Skills

**Programming:** Python, JavaScript, HTML/CSS, GLSL, C, PHP/MySQL, Java, MATLAB, LaTeX.

**Software:** Clip Studio Paint, GIMP, Paint Tool Sai, ArtRage, Adobe Photoshop, TVPaint Animation, Adobe AfterEffects, Adobe Premiere, Android Studio.

**Operating System:** Windows 10 / 8 / 7.

**Projects:** Designed Android App to help users learn to read and write Amharic for CS50 Final Project. Designed user style for older version of YouTube: <https://userstyles.org/styles/110702/bubbly-youtube>.

### Research Experience

#### NORTHWESTERN UNIVERSITY CIERA SUMMER REU

Evanston, IL

##### Research Assistant

June – August 2018

Researched FIRE galaxy simulations at the Center for Interdisciplinary Exploration and Research in Astrophysics (CIERA). Implemented colormapping functionality in Firefly, an interactive visualization application for particle-based data. Visualized HII regions in relation to young stars, and compared to the Strömgren Radius model.

#### HARVARD-SMITHSONIAN CENTER FOR ASTROPHYSICS (CFA)

Cambridge, MA

##### Research Assistant

June – August 2017

Assisted graduate student in developing software to aid search for origins of Gamma-Ray Bursts. Used Anaconda and astropy packages to create Python program that takes sky maps as input and outputs a list of possible galaxy sources, along with their probabilities. Kept user-friendliness in mind, as program is intended to be open-source.

### Work Experience

#### HARVARD STUDENT AGENCIES (HSA)

Cambridge, MA

##### HSA Tutor

May 2017 – Present

Conduct one-on-one SAT lessons, typically Math, with high school students: tutored six students in packages of 1 – 20 hours. Lead workshops for groups of 15 – 70 non-US students and/or parents on topics including time management, life at Harvard, and how to apply to American colleges. Wrote two posts for HSA Tutoring blog.

##### HSA Bartending Course & Bartending Services Bartender

January 2017 – Present

Obtained T.I.P.S. Certification to work as bartender. Serve alcoholic beverages and/or make mixed drinks. Distribute food, and help set up and clean up at events.

#### GPI US

Boston, MA

##### English Speaking Coordinator

March 2018, July – August 2017

Guided groups of 7 – 8 Japanese high school students around Boston. Facilitated group discussions on topics such as leadership, immigration, and privacy and security in order to improve their English and critical thinking skills. Served as judge in end-of-week speech competition, presenting the awards to students in closing ceremonies.

**Kanazawa Morning Discussion Leader** August 2016  
Worked with a group of 5 students from Kanazawa High School in Japan. Facilitated discussions on STEM topics such as aerospace, robotics, biotechnology, and math. Encouraged students to collaboratively solve problems without speaking Japanese. Served as judge and asked appropriate questions in final Science Fair Competition.

**ISABELLA STEWART GARDNER MUSEUM (ISGM)** Boston, MA  
**Teens Behind the Scenes Intern** September 2015 – August 2016  
Led family art activities, greeted visitors, and answered questions regarding museum's art collection and history. Pioneered ISGM's first "Teen Takeover", a celebration of young local artists, with other interns. Designed flyers and successful marketing strategy for T.T. (~150 attendees), resulting in its adoption as an annual museum event.

### Leadership and Activities

**THE HARVARD CRIMSON** Cambridge, MA  
**Editor, Design Board** September 2017 – Present  
Completed fall semester "comp" process, which involves creating eight illustrations for pre-existing articles in the newspaper, primarily those conveying a message or political view. Work in both traditional and digital media.

**HARVARD COLLEGE CHILDREN'S STORIES (HCCS)** Cambridge, MA  
**Illustrator** February 2017 – Present  
Collaborate with writer to develop personalized book for a child in need, creating 10 – 14 illustrations per story. Volunteered to finalize layout in Microsoft Word, as well as read stories aloud at ARTS FIRST Festival in 2017.

**HARVARD COLLEGE ASTROPHYSICAL SOCIETY (ASTRO SOCIETY)** Cambridge, MA  
**Sophomore Liaison** April 2017 – May 2018  
Attended and facilitated biweekly lunches. Built astrophysics community at Harvard by reaching out to potential new members, specifically sophomores and freshmen. Disseminated information about various astrophysics-related opportunities, such as summer research, extracurriculars, and Harvard courses over Astro Society listserv.

**SCIENCE CLUB FOR GIRLS (SCFG)** Newton, MA  
**Lead Junior Mentor (JM)** January – May 2016  
Promoted to act as JMs' role model while maintaining typical JM duties in pilot Lead JM program. Facilitated JM trainings and "Sister Circles", as well as leading JM debriefs after class. Participated in monthly conference calls with other Lead JMs to discuss strategies for upcoming trainings, the Lead JM program, and SCFG in general.

**Junior Mentor (JM)** October 2011 – January 2016  
Empowered girls in K-8 to succeed in STEM by co-leading weekly lessons. Helped develop lesson plans and responded to girls' journal entries after class. Took initiative and incentivized girls to write more by rewarding those who wrote at least half a page with a small drawing. Assisted girls in preparing for final poster presentation.

### Academic Conferences

**HARVARD COLLEGE IN ASIA PROGRAM (HCAP)** Cambridge, MA  
**Istanbul Delegate, Public Relations & Multimedia (PR+MM) Committee** January 2018  
Prepare for winter Leadership Conference, during which Harvard students host foreign delegates, by helping to design HCAP's T-shirt. Record video footage and take photos during conference to post on website in future.

**APS CONFERENCE FOR UNDERGRADUATE WOMEN IN PHYSICS (CUWIP @ RIT)** Rochester, NY  
**Student Physicist** January 2018  
Took part in workshops on graduate school, physics careers, and summer research, hosted by Rochester Institute of Technology. Toured a biophysics laboratory; attended talks on students' research and on current topics in physics, e.g. multi-messenger astronomy at LIGO. Networked and built connections with other female physicists.

### Language Skills and Interests

**Languages:** Native Amharic and Conversational German

**Interests:** Drawing, Running, Reading, Traveling