Grace Katherine Kallman

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Education

Berklee College of Music, Online **Sep 2025 – Sep 2026**
Advanced Professional Certificate in Music Production and Technology

Dartmouth College, Hanover, NH **Sep 2021 – Jun 2025**
Bachelor of Arts: Double Major in Music & Physics GPA 3.70/4.00 (**Second Honor Group 2024-2025**)
Relevant Coursework: Songwriting 1&2, Film Scoring, Special Studies in Composition (London), Sound Engineering I, Art of Conducting, Melody and Rhythm, Creative Music Theory
Musical Skills & Interests: Ableton Live, Logic Pro, MuseScore, Curation (70+ public Spotify playlists), Dartmouth Opera Lab, GrammyU Member, Women in Music Member

Relevant Experience

Dartmouth College, Hanover NH **Jan 2022 – May 2025**
Manager of Dartmouth Chamber Orchestra (DCO)
- Managed communications with orchestra, promoted and facilitated rehearsals and concerts (assisted with 6 concerts), supervised member attendance, set up and took down rehearsal space (including transporting instruments).
- Worked with leadership team to determine repertoire and schedule of events for the term.
- Advertised and facilitated Fall Club Fair to recruit new members.

Dartmouth College, Hanover NH **Sep 2024 – Nov 2024**
Teaching Assistant for Creative Music Theory 1 with Dr. Rowland Moseley
- Taught sight-singing, confident and accurate singing, and musicality to students.
- Assisted Dr. Moseley with teaching vocal and rhythm exercises. Aided in administrative needs.

Sonoma Academy, Santa Rosa CA **Aug 2019 – Jun 2021**
Vice President of Tri-M Music Honor Society
- Generated, executed ideas for community involvement and service. Program chairperson, manager for community events.
- Managed Tri-M social media and open mics.
- Assisted Sonoma Academy arts department. Encouraged musicianship and musical literacy in community.

Compositions and Performances (Selected)

Dartmouth College, Hanover, NH **Jan 2022 – Present**
Compositions:
- Instrumental: *Metamorphosis* (2024)
  3-movement piano trio that explores the various emotions of growing up.
  Movement 1, *Youthful Whispers*, conveys the nostalgia for childhood. Movement 2, *Mourning Change*, expresses the grief of leaving childhood behind. Movement 3, *Wings Unfurled*, celebrates the freedom that arises with adulthood.
- Film Scoring: Evacuation (2025, Chapman student film), Kidnapped (2023, Chapman student film), The Pursuit of Happyness (2022, scene rescore), Marley & Me (2022, scene rescore)
- Songwriting: *Adulting* EP (2025, in progress), *The Future's in The Past* (2024), *Romcom Love Story* (2024), *If It Kept On Ringing* (2024)

Performances:
- 2024 Fall DCO Concert - Cellist: *The Nutcracker* (Tchaikovsky); *Out of Africa* (Barry); *Symphony No. 94 MVT II* (Haydn)
- 2023 Fall DCO Concert - Cellist: *Blue Danube* (Strauss); *Rhapsody in Blue* (Gershwin); *How to Train Your Dragon* (Powell)
- 2023 Summer Student Jazz Band Concert - Vocalist: *Is it a Crime* (Sade); *Fly Me to the Moon* (Howard); *The Girl From Ipanema* (Jobim)
- 2023 Spring Opera Lab Cornucopia - Vocalist: *My Romance* (Hart); *The Greatest Love of All* (Masser)
- 2023 Winter DCO Concert - Principal Cellist: *The Phantom of the Opera* (Webber); *Swan Lake, Op. 20* (Tachaikovsky); *Mamma Mia Medley* (Andersson)

Additional Experience

California Institute of Technology, Pasadena, CA **Jun 2024 – Aug 2024**
WAVE Fellowship (Mentors: Dr. Hannah Penn Earnshaw, Dr. Brian Grefenstette, Prof. Fiona Harrison)
- Presented findings at Caltech Summer Seminar Day. Wrote Final Report detailing research and findings.
- Helped lay groundwork for upcoming NASA UVEX mission: Optimized HDR algorithm for UVEX, learned properties of CMOS detectors, discerned accuracy and limitations of CMOS-detector photometry. Created UVEX CMOS detector simulation (*Python*). Observed detector-changing process, created how-to guide. Measured CMOS detector in lab.

Dartmouth College, Hanover, NH **Jun 2023 – Mar 2024**
Dwarf Galaxy Researcher and Data Analyst (Mentor: Prof. Burçin Mutlu-Pakdil)
- Multi-institutional data correction of masking for low surface brightness galaxy candidates from the Dark Energy Survey.
- Identified dwarf galaxy and halo star cluster candidates for follow-up observations via visual inspection of images and plots from DELVE survey (partnered with Zooniverse). Visual inspection for dwarf galaxies in DESI Legacy Survey.

Dartmouth College, Hanover, NH **Jan 2023 – Mar 2023**
Theoretical Physics Apprenticeship (Mentor: Prof. Devin Walker)
- Obtained deep understanding of general relativity and solved a variety of related problems using newly learned techniques. Techniques include: Minkowski spacetime, tensors, general relativity field equations, and the Schwarzschild solution.

Sonoma State University, STEM Learning (EdEon), Rohnert Park, CA **Jun 2022 – Sep 2022**
Summer Research Intern (Mentor: Dr. Laura Peticolas)
- Presented research at American Geophysical Union conference (Chicago, December 2022).
- Analyzed the 50,016 images from the Eclipse Megamovie project to replicate Hanaoka, Y. et al. (2018) using crowd-sourced images captured by 1,190 amateur photographers in the U.S. to calculate polar jet velocities of the Sun's corona.
- Compiled, troubleshot open-source *Python* code to make composite, difference, and HDR images (including calibrating, normalizing, rotating, and aligning images).

Independent Research, Santa Rosa, CA **Jun 2019 – Oct 2021**
Variable Star Researcher and Data Analyst (Mentor: Prof. Gordon Spear)
- Presented original research poster, "New Variable Stars Discovered in the Field of the Classical Cepheid EK Mon." Poster presented at: American Association of Variable Star Observers conference; November 2020 (virtual).
- Observed variable stars using the worldwide Los Cumbres Observatory through the Global Sky Partners program.
- Analyzed images to select variable star candidates from 588 stars using *Python* code.
- Created period-likelihood plots and lightcurves, confirmed 11 variable star discoveries, and determined variable star periods (via Date Compensated Discrete Fourier Transform analysis in *AAVSO VStar*), star-types, amplitudes, maximum brightness levels, and epochs using *AstroSource* code.

Robert Ferguson Observatory, Kenwood, CA **Oct 2018 – Mar 2020**
Docent and Educator
- Completed 6-week docent training program. Mastered, ran RC20 telescope at six-hour public Star Parties throughout year.
- Presented variable star research and taught research methods to other docents.

Technical & Personal Pursuits

Computer: *Python* Google Suite, Microsoft Office Suite, Windows OS, MacOS
Language: Spanish (Intermediate)
Other: Fitness (weightlifting, peloton, boxing, yoga)