



2023 Davidson Fellows Scholarship Mathematics Requirements Checklist

Deadline: February 15, 2023, 11:59 p.m. Pacific Time

Applicants must submit a work in a specific domain area of mathematics. Please select one of the following domain areas:

- Calculus
- Fractals
- Geometry
- Number Theory
- Other - such as Algebra, Applied Mathematics, Analysis, Computer Mathematics, Combinatorics, Graph Theory, Game Theory, Probability and Statistics.

Category Components:

- A formal research report including a bibliography.
- A visual model. This model is the visual representation of your research and findings.

Please note:

- The visual model can be as individual as your project. It may be photos, a PowerPoint presentation, graphs, diagrams, illustrations, etc.; your project will dictate how you present your work. We also suggest asking your nominators how to best present your research and findings.
 - The formatting of the bibliography should follow the *American Psychological Association Publication Manual* or any other recognized style guide.
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Two Nominators Required

Two individuals who are familiar with your work must each submit a Davidson Fellows Nominating Form. Family members/relatives may not serve as nominators.

Nominator forms will be automatically emailed to your nominators upon approval of the initial portion of your application.

Forms must be submitted directly by the nominator to the Davidson Fellows program on or before the submission deadline of February 15, 2023, 11:59 p.m. Pacific Time. Both nominators are required. Applications with missing Nominating Forms as of the February 15, 2023 deadline will be disqualified.



Attachments to the Davidson Fellows Application

All attachments are to be completed by the applicant. The word count or length of the attachments is up to the applicant.

Note: Applicants in all categories must submit attachments.

ATTACHMENT ONE: Process Essay

- **Part One:** Please answer the following questions:
 - What inspired you to pursue this work?
 - How much time (hours/days/months) did it take you to complete this work?
 - How did you organize the work that went into doing it?
 - What difficulties did you encounter and how did you handle them?

 - **Part Two:** Please answer the following questions:
 - Where was the work completed?
 - Who supervised your work (ex. teacher, mentor, grad student, principal investigator, etc.)?
 - List who helped you and what assistance they provided. (Please include individuals who offered equipment, ideas, critiques, materials, methodology, etc.)
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ATTACHMENT TWO: Significance and Benefit to Society Essay

- Please explain your project's social relevance or how it can make a positive contribution.
 - Does your submission qualify as a significant piece of work, as defined by at least one of the following criteria?
 - exceptional creativity
 - a new idea with high impact and/or broad implications
 - an innovative solution with regional, state and/or national implications
 - an important advancement that can be replicated and built upon
 - an interdisciplinary discovery with the potential to effect positive change
 - a prodigious performance
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ATTACHMENT THREE: Video Describing Work

Submit a maximum 10-minute, home-production quality video. Think of this as the conclusion of your application. You can speak freely or from a script; you can be as creative as you wish. This video is a



chance to talk about anything not addressed in other parts of your application. Or, you can emphasize aspects of your project you feel are especially important.

Suggestions (these are only suggestions, feel free to use some, all or none) for the video:

- You can briefly summarize your submission, why it was done, its significance, its social relevance and any other details you'd like to highlight.
- You can describe how you became interested in this project, how it evolved and how working on it has helped you develop as a student and a person.
- You can also describe how your submission fits into the larger context of the field of study and describe any ideas/people/theories that influenced your work.
- You can discuss if you'll continue with this project, future work and plans, anything else you'd like to add to round out your submission.
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*YouTube video upload instructions:

- Go to www.YouTube.com
 - Either create an account (it's free) or sign in
 - Click "Upload" in the top menu bar and follow the directions [here](#), to make the video **UNLISTED**. (The Unlisted setting ensures that your video will only be viewed by the Davidson Fellows Program and its judges, or anyone else you send the URL to.)
 - Copy and paste the link to this video as Attachment Three.
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