



## 2021 Davidson Fellows Scholarship Mathematics Requirements Checklist

**Deadline: March 10, 2021, 11:59 p.m. Pacific Time**

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The applicant 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 works cited page and 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 works cited page and annotated 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.

Forms must be submitted directly by the nominator to the Davidson Institute on or before the submission deadline of March 10, 2021, 11:59 p.m. Pacific Time. Both nominators are required. Applications with missing Nominating Forms as of the March 10, 2021 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 1 through 3.

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### 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? (Give names, titles, addresses, e-mail, and phone numbers)
    - What help have you received in doing this work?
    - List who helped you and what assistance he/she provided. (Please include individuals who offered equipment, ideas, critiques, materials, methodology, etc.)
  
  - **Part Three:** Please tell us how Covid-19 has impacted your work. Be candid! It is important for the judging panel to know how the pandemic shutdown affected your work.
    - Did Covid-related school/lab closures impact your research?
    - Have you been able to go back to school and/or lab? If not, where did/have you continue/d your work?
    - If the pandemic affected your research timeline, where do you think your research would be at this point had there not been a pandemic?
    - Did Covid impact your work in other ways?
    - If you have not been able to access your school/lab/other facilities and are submitting your project as it stood when your research locale was closed, please let us know.
    - Tell us about if or how you worked around Covid-related closures.
    - Is there anything else you'd like us to know?
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**❑ ATTACHMENT TWO: Significance and Benefit to Society Essay**

Please explain why your submission qualifies 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

Also, please explain how your work may make a positive contribution to society or has social relevance.

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**❑ ATTACHMENT THREE: Video Describing Work**

Submit a maximum 10-minute, home-production quality video recording. You are encouraged to speak “from the heart” in your video, rather than reading directly from a script. The video is a chance to talk about a topic not addressed in the essays or to expand upon a point the essays touched on only briefly.

Suggestions for the structure of the video:

- In the first few minutes, you could briefly describe your submission summarizing why it was done, its significance, its benefit to society/social relevance and other details of your accomplishment.
- Continue by describing how you became interested in this project, how it evolved and how working on it has helped you develop your talents.
- Next, describe how your submission fits into the larger context of the field of study and describe the specific ideas/people/theories that influenced your work.
- Conclude your video with a brief description on how you think your work/talent could be applied/highlighted.

*Please note there are two submission options for this video. Option one is uploading your video (via any accepted format) to YouTube\* and uploading the link to the online application. Option two is uploading a .wmv file that is no more than 75MB directly to the online application.*



\*YouTube video upload instructions:

- Go to [www.YouTube.com](http://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 insures 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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