

Research Experience for Undergraduates in Mathematics

Danika Van Niel

Purdue University

Purdue Research in Mathematics Experience

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UNIVERSITY

Outline

- 1 NSF REU
- 2 Application Resources
- 3 My Experience
- 4 My Research

What is an NSF REU?

The National Science Foundation's (NSF) mission includes support for all fields of fundamental science and engineering.

A Research Experience for Undergraduates (REU) is typically a 6 to 10 week program at a major university.

The NSF funds many REU programs ranging from Chemistry to Education and Human Resources.

https://www.nsf.gov/crssprgm/reu/reu_search.jsp

Eligibility

Eligibility is different from program to program, but if you are currently an undergraduate student you should be able to find a program that you can apply for.

The NSF funds citizens or permanent residents of the US, but if you don't fall into this category there are other options. Some NSF REU programs have funding from their University as well and can fund you that way, and there are other REU programs not funded by the NSF. More REU programs can be found at MathPrograms.org.

<https://www.mathprograms.org/db>

REU programs sometimes accept first year students and students who will have graduated before the program begins, but most programs are looking for second and third year students.

Benefits

REU programs are highly selective. Why?

Here are some of the benefits:

- Original research
- Networking
- Panel Discussions
- Present Your Work at Conferences
- Free Housing
- Living Stipend
- Travel Fund

Career Services

Career Services

<http://careerservices.syr.edu/>

- Resume and CV Revisions
- Interview Techniques
- Networking Skills

Essays

Center for Fellowship & Scholarship Advising

<http://nationalscholarships.syr.edu/syracuse-scholars/>

- Advice on Writing Personal Statement
- Asking for a Letter of Recommendation
- Essay Revision

Writing Center

<http://wc.syr.edu/about-us.html>

- Essay Revision

Professors

Your Professors are one of your greatest resources. Here are a few ways you can make the utilize their knowledge:

- 1 Ask for advice from Professors who know you well
- 2 Ask Professors for Letters of Recommendation
- 3 Eventually you may find a mentor who will help you through your career

I was a part of the Purdue Research in Mathematics Experience (PRiME) NSF REU. Here are some of the opportunities I was given:

- Original research in Algebraic Geometry
- Presented my work at three conferences
- Networked with people in my profession, and at potential graduate schools
- Learned about graduate admissions
- Lived in campus apartment housing for free
- \$4000 living stipend
- Travel fund for conferences

Daily Life

The first two weeks we spent learning the basics.

The next five weeks we spent researching our project.

The final week we spent writing a paper and creating presentations.

Self Discovery

Something that isn't often talked about is how much you can learn about yourself. This experience helped me to answer these questions for myself:

- Is Graduate School right for me?
- What are my aptitudes?

Preparation

My experience at PRiME didn't only teach me about algebraic geometry and about myself, I also became prepared for the future. Here are some examples of how I became more prepared:

- Bridges the gap between 500 level courses and graduate courses
- Understood the graduate school process
- Build confidence in your abilities

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Questions?