WPI CIMS

WPI REU in Industrial Mathematics and Statistics Application Form for 2016

Center for Industrial Mathematics and Statistics
Department of Mathematical Sciences
Worcester Polytechnic Institute
Worcester, MA 01609

Please fill in all requested information:

1. General Information

Family Name:	Silvia
First Name:	Christopher
Middle Initial:	P
Date of Birth:	4/28/95
Country of Citizenship:	United States

If you are not a US citizen, are you a permanent resident of the US? ☐ Yes

2. Address

	Current Address	Permanent Address
Street City, State, ZIP	Apartment 1 505 Wyckoff Rd. Cayuga Heights, NY	7801 Leesburg Dr. Bethesda, MD, 20817
Telephone:	240-515-5838	301-320-1893
E-mail:	cps232@cornell.edu	

Note: All correspondence will be via e-mail.

3. Ethnicity

Please check all that apply.

(Among applicants who are equally qualified, this information will be used to help us admit an ethnically diverse group of participants. We especially encourage applications from women and ethnic groups historically under-represented in mathemtics graduate programs.)

- ☐ African-American
- ☐ American-Indian
- ☐ Asian-American
- ☐ Chicano
- ☐ European-American
- ☐ Fillipino
- ☐ Latino
- ☐ Native Alaskan
- ☐ Puerto Rican
- ☐ Other (please specify)

4. Education

List all colleges and universities you have attended, regardless of whether credit or a degree was obtained.

Name of Institution	Dates Attended	Major
Cornell University	Fall 2013-Present	Math, Physics

List all advanced mathematics courses you have taken or are taking.

Course Name	Textbook (Author)	Grade
Mathematical Modeling	(Lecture Notes)	A
Nonlinear Dynamics and Cha	Strogatz	A
Complex Analysis	Gamelin	A-
Introduction to Topology	(Lecture Notes)	A
Abstract Algebra	Dummit & Foote	A-
Advanced Linear Algebra	(Lecture Notes)	A-
Numerical Analysis	Ascher and Grief, van Loan	A-

Projected Date of Graduation: May 2017

5. Areas of Interest

Rate the extent of your background in the following project areas (0 - little or no experience; 5 - highly experienced), as well as your preference for a project in that area (0 - not at all desirable; 5 - highly preferable). Below each category are links to representative examples of past REU projects in that area.

		0	1	2	3	4	5
Applied Statistics	Experience:	○	○	○	◉	○	○
	Preference:	○	○	◉	○	○	○

Examples:
2014 (../REU2014/projects.html#data) -Predictive Power of a Generalized Preventive Care Segmentation Model
2013 (../REU2013/projects.html#als) - Analyzing Exome Sequencing Data to Detect Familial ALS Genes
2013 (../REU2013/projects.html#genomequest) - Analyzing Databases for Patterns in Customer Usage for GenomeQuest
2012 (../REU2012/projects.html#gillette) - Modeling Multidimensional Tolerance Stack-up in Excel Using Monte Carlo Simulations
2011 (../REU2011/projects.html#instrumentation) - Evaluation of Glucose Sensor Simulated Use as a Predictor of Device Performance

		0	1	2	3	4	5
Mathematical Finance	Experience:	○	○	◉	○	○	○
	Preference:	○	○	◉	○	○	○

Examples:
2013 (../REU2013/projects.html#Kalman) - Forecasting Latent Business Conditions Using Macroeconomic Factors and the Kalman Filter
2012 (../REU2012/projects.html#wellington) - Incorporating Forward-Looking Signals into Covariance Matrix Estimation for Portfolio Optimization
2010 (../REU2010/projects.html#sharpe) - Sharpe Ratio Versus the Information Ratio: Capturing Minimum Variance Portfolios

		0	1	2	3	4	5
Mathematical Modeling	Experience:	○	○	○	○	◉	○
	Preference:	○	○	○	○	○	◉

Examples:
2012 (../REU2012/projects.html#ccsb) - Modelling Cancer Stem Cell and Non-Stem Cancer Cell Population Growth
2011 (../REU2011/projects.html#negpa) - Geometry and Flow Effects on the Performance of Vertical Residential Geothermal heating systems
2010 (../REU2010/projects.html#morgan) - Mathematical Modeling of Cobbling Instabilities In Steel Rod Fabrication

Briefly describe your computer programming experience, focusing on the programming languages (e.g., C, C++, Fortran, etc.) and mathematical and statistical software packages (e.g., Matlab, SAS, R, etc.) with which you are most familiar.

```
I am experienced with Numpy, Matlab,
and Julia.
I am proficient in python, haskell, and
bash.
I am proficient using and administering
```

Rate the extent of your background in the following application areas (0 - little or no experience; 5 - highly experienced)

Application Area	0	1	2	3	4	5
Biology	○	◉	○	○	○	○
Chemistry	○	◉	○	○	○	○
Engineering	○	○	○	○	◉	○
Finance	○	◉	○	○	○	○
Physics	○	○	○	○	○	◉

6. Recommendation

Please arrange to have two or three faculty who know you well write you a letter of recommendation. See the instructions for recommenders. (http://www.wpi.edu/academics/math/CIMS/REU/Current/#Recommenders)

If you wish, before summission you may print a copy of your application form for your records.

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Submit the Application

For any questions, please contact:

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