

# Shiladitya Bhattacharyya

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## Education

### University of Illinois at Urbana-Champaign

*BS in Computer Science*

*BS in Mathematics*

*Urbana-Champaign, IL*

*Expected Spring 2015*

*GPA: 3.83/4.00*

### Illinois Math and Science Academy

*Aurora, IL*

## Skills and Coursework

### Proficient Languages

Python, Java, C, C++, R

### Relevant Coursework

Numerical Methods, Harmonic Analysis, Algorithms

## Research and Work Experience

### Quant/Trader Internship

*Belvedere Trading*

*June 2014 - Aug 2014*

*Chicago, Illinois*

- Learned trading and options theory and clerked for multiple trading desks.
- Researched various volatility models including stochastic and jump models and their effects on options pricing.
- Wrote map-reduce jobs to compute market toxicity metrics and analyzed their ability to predict volatility using linear/harmonic analysis.
- Developed and simulated algorithmic trading strategies incorporating both static/dynamic thresholds and stochastic controls.

### Research on Random Knot Theory

*Illinois Geometry Lab*

*Jan 2013 - Sept 2013*

*Urbana, IL*

- Explored various models of random knot generation using “SnapPy” software.
- Contributed to “SnapPy” source code by implementing knot manipulating functions in Python.
- Analyzed data using distribution fitting techniques.

### Mentor of Math 461 (Probability Theory)

*UIUC Department of Mathematics*

*Jan 2013 - Jan 2014*

*Urbana, IL*

- Assisted students taking Math 461 online with course work.
- Graded online assignments using *Mathematica* software.
- Was students’ primary contact for courseware related questions or concerns.

## Awards, Honors, and Distinctions

### Most Outstanding Major Award in Mathematics

*May 2014*

### Vincent O. Greene Scholarship in Mathematics

*May 2013*

### Salma Wanna Award in Mathematics

*May 2013*

*3<sup>rd</sup> year James Scholar*

*3<sup>rd</sup> year Dean’s List student*

## Miscellaneous

Some interests include Graph Theory, Additive Number Theory, Analysis, Stochastic Calculus, and L<sup>A</sup>T<sub>E</sub>X. In my free time, I enjoy classical guitar, long distance running, and fine espresso.