

## Koundinya Vajjha, CQF

E-Mail:koundinya.vajjha@gmail.com

Phone no : +14123308875

Male, 24 years

<https://www.linkedin.com/in/koundinya-vajjha-cqf-a7844998/>

Address:

2715 Murray Ave,  
Pittsburgh, Pennsylvania,  
15217, USA.

### Current position

Graduate student in Mathematics at the University of Pittsburgh.

### Previous work experience

- **Quantitative Analyst** CRISIL, an S&P Global Company  
*Chennai, India* 2016 - 2017

### Education

- **University of Western Ontario** London, Ontario  
*MSc. Mathematics* 2017 - present
- **Fitch Learning**  
*Certificate in Quantitative Finance* 2017
  - Passed
  - Percentage : 94
- **Indian Statistical Institute** Kolkata  
*Master of Mathematics* 2014 - 2016
  - Passed in First Division
  - Percentage : 63
- **Indian Statistical Institute** Bangalore  
*Bachelor of Mathematics* 2011 - 2014
  - Passed in First Division
  - Percentage : 64.07

### Academic Publications

1. On Pythagorean Triples of the Form  $(i, i + 1, k)$  in Resonance: Journal of Science Education, September 2009, Volume 15, Number 09.
2. On a Definite Integral of the Fractional Part Function in Resonance: Journal of Science Education, May 2012, Volume 17, Number 05.

### Areas of Interest

1. Interested in Homotopy Type Theory and the Univalent Foundations project, and their broad applications to Mathematics and Theoretical Computer Science.

2. Interested in application of supervised learning and statistical algorithms for modelling purposes, particularly *probability of default* and *Anti-Money Laundering*.
3. Interested in applying formal verification methods in finance.

## Internships and Projects

1. As part of the Certificate in Quantitative Finance, my final project was based on implementing and backtesting a Statistical Arbitrage trading strategy using methods of Time Series analysis such as the Engle-Granger procedure.
2. Summer internship in **Essex Lake Group LLC**, a profit enhancement company where work was done on developing a credit scoring model. For this, the packages used were Statistical Analysis System (SAS) and the R programming language to develop a logistic regression model, whose results were compared to the  $k$ -nearest-neighbour algorithm on a large dataset.
3. Summer internship under Dr.Kapil Hari Paranjape during the month of May on “**Grothendieck Dessin d’enfants**” at the Indian Institute for Science Education and Research, Mohali, in 2013.
4. Summer internship under Dr.Kaneenika Sinha during the period May-July in a project on “**Ramanujan’s  $\tau$ -function**” as a JNCASR Fellow, at the Indian Institute for Science Education and Research, Kolkata, in 2012.

## Conferences

1. Presented a paper in the oral presentation category at the **International Congress of Mathematicians**,(ICM-2010) held in Hyderabad in August 2010, in the area of Number Theory,in a session chaired by Dr. Aleksandar Ivic.
2. Participant at the **DeepSpec Summer School, 2018** at Princeton University.

## Technical Skills

1. Proficient in coding in Statistical Analysis System (SAS), R programming language, Python and Haskell.
2. Proficient in LaTeX, Matlab/Octave and SAGE (A computer algebra system).
3. Experience in formal verification with the Coq proof assistant and LEAN theorem prover.
4. Highly proficient in Bash and working in a UNIX/Linux environment.

*I hereby certify that the above details are true to the best of my knowledge.*

**Koundinya Vajjha**

**Date: October 17, 2018**

**Place: London**