

## Koundinya Vajjha, CQF

E-Mail:koundinya.vajjha@gmail.com

Phone no : +14123308875

Male, 25 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 - 2018
- **Fitch Learning**  
*Certificate in Quantitative Finance* 2017
- **Indian Statistical Institute** Kolkata  
*Master of Mathematics* 2014 - 2016
- **Indian Statistical Institute** Bangalore  
*Bachelor of Mathematics* 2011 - 2014

### Academic Publications and Preprints

1. *A formal proof of PAC Learnability of Decision Stumps* (with Joseph Tassarotti and John Tristan), <https://arxiv.org/abs/1911.00385>
2. *On Pythagorean Triples of the Form  $(i, i + 1, k)$*  in Resonance: Journal of Science Education, September 2009, Volume 15, Number 09.
3. *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. Formal Verification of algorithms and mathematical proofs.
2. Discrete Geometry.

### Internships and Projects

1. Summer Internship in Oracle Labs, 2019.
2. 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.
3. 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.
4. 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.
5. 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: February 15, 2020**

**Place: Pittsburgh**