RESUME

1. General information

Name: Atul Shekhar
Date of birth: February 15, 1990
Sex: Male
Current occupation: Student (B.Sc. Math 3rd Year)
Course: B.Sc. Honours in Mathematics and Computer Science
Institution: Chennai Mathematical Institute

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2. Academic history

2.1. **Overview.** I am currently in the third year of a three-year B.Sc. Honours program in Mathematics and Computer Science at the Chennai Mathematical Institute.

CGPA (first four semesters)	8.32/10

2.2. **Undergraduate course details.** In the Chennai Mathematical Institute, a grade point out of 10 is awarded to each subject. A grade of A corresponds to 10 out of 10, a grade of AB corresponds to 9 out of 10 and so on.

Details of the usual compulsory courses can be found on the page
http://www.cmi.ac.in/teaching/courses.php?prog=bscm

I have taken some optional courses at the graduate level which I enumerate below.

(1) **Measure Theory and Integration** (Semester 3)
Instructor: Prof. V.S. Sunder
Course Content: Probability and Measure Spaces , Outer Measure and Caratheodory Extension , Lebesgue Measure , Regularity of Measures , Integration of measurable functions and convergence theorems , Product spaces and Fubini theorem , Complex Measures , L^p Spaces , Radon-Nikodym theorem and Riesz Representation Theorem.
In this course , some of Probability theory like Random variables and its distribution , Borel-Cantelli lemma , Kolmogorov consistency theorem were also taught.

Grade obtained: B

(2) **Game Theory** (Semester 4)
Instructor: T. Parthasarathy
Course Content:Finite matrix games , Von-Nuemann minimax theorem and its connection with Linear programming , simplex method , Cooperative games and different solution concepts like Core , Introduction to stochastic games.
Grade obtained: B

2.3. **Projects.**

(1) **Microsoft Research Winter School on Cryptography** in December 2007 at MSR Bangalore.The lectures were taken by Prof. Adi Shamir.

(2) Project on Financial Mathematics under Prof. Krishna Maddaly of **Institute of Mathematical Sciences** in Summer 2008.

(3) Project on Game Theory and Bankruptcy Problems under Prof. Amit K Biswas of **Indian Statistical Institute , Chennai** in Summer 2009.

(4) In Summer 2009, I gave a proof of **Generalization of Von-Neumann's Minimax theorem for compact metric Spaces** .The PDF of the proof can be found at
`http://www.cmi.ac.in/~atul/minimax.pdf`

3. Awards

3.1. **Olympiads.**

(1) I qualified the **Indian National Mathematics Olympiad** and was selected to attend the **International Mathematics Olympiad Training Camp (IMOTC)** in 2006. I was also selected in 2007 .

(2) I represented India in **International Mathematics Olympiad -2007** held at Hanoi-Vietnam and won a **Silver** medal. Details can be found here

`http://www.imo2007.edu.vn/index.php?module=ViewInforTableForm.php&act=viewresult&ct=IND`

3.2. **Scholarships.** I am a recipient of KVPY (Kishore Vaigyanik Protsahan Yojana) scholarship awarded by **Indian Institute of Science , Bangalore** .

4. Books Read

These are some of the books I have read.

(1) Algebra by Michael Artin and Linear Algebra by Hoffman-Kunze.
(2) Principles of Mathematical Analysis by Rudin and calculus by Apostol
(3) Real and Complex Analysis by Rudin and Complex Analysis by Conway.
(4) Few chapters of Commutative Algebra by Zariski-Samuel
(5) Elementary Number Theory by David M Burton.and by Niven-Zuckerman
(6) Topology by Munkres.
(7) Graph theory by D.West and Algorithm Design by Kleinberg-Tardos
(8) Measure and Probability by V.S. Sunder
(9) Probability Theory by K.R. Parthasarathy.
(10) Some Topics in Two-Person Game Theory by T.Parthasarathy.