Aditya Ghosh

Curriculum Vitae

Sodepur, Panihati
Kolkata 700110
West Bengal, India
✉ *ghoshadi26@gmail.com*

Education

2017–2020	**Bachelor of Statistics (B.Stat)**, *Indian Statistical Institute (I.S.I.)*, Kolkata, India. Secured 93.87% in aggregate.
2015–2017	**Higher Secondary (Standard 12) Examination**, *Ramakrishna Mission Boys' Home, Higher Secondary School, Rahara*, Kolkata. Secured 91% in aggregate, with 100 in Mathematics and 99 in Statistics.
2005–2015	**Secondary (Standard 10) Examination**, *Ramakrishna Mission Boys' Home, Higher Secondary School, Rahara*, Kolkata. Secured 87.14% in aggregate, with 100 in Mathematics.

Academic honors

2017–2020	Got rewarded with cash prizes in form of books for ranking 1st (in all but one semester) or 2nd throughout the B.Stat course in I.S.I. Kolkata.
2018, 2019	Selected for the prestigious *Madhava Nurture Camp* in 2019 and 2018.
2018	Scored in the top quartile in the *Simon Marais Mathematics Competition (2018)*.
2017	Ranked second in the *B.Stat entrance examination (2017)* of I.S.I. Kolkata. Also succeeded in securing a position in the B.Sc entrance examination (2017) of the *Chennai Mathematical Institute*, Siruseri, Chennai.
2016	Achieved a *certificate of merit* for performing at a promising level in *Indian National Mathematical Olympiad (INMO) 2016*, organized by NBHM, Govt. of India.

Short research experiences

Winter 2020	*On Age-dependent Branching Processes with or without Immigration*, a joint project with my batchmates *Wribhu Banik* and *Shouvik Middey*, under the guidance of *Prof. Soumendu Sundar Mukherjee*, as a part of the Stochastic Processes course in our M.Stat 1st Year.
Fall 2020	*Analyzing a Lower Back Pain Data*, a joint project with my batchmates *Anik Burman* and *Soham Das*, under the guidance of *Prof. Kiranmoy Das*, as a part of the Regression Techniques course in our M.Stat 1st Year.
Summer 2020	*Finding Anomalies in a Coal Quality data of Coal India Limited*, a joint project with my batchmates *Soham Das* and *Arjama Das*, under the guidance of *Prof. Debashis Sengupta*, as a part of the Statistics Comprehensive course in our B.Stat 3rd Year.
Spring 2020	*Typical Distance between Two Randomly Selected Vertices of a Erdős-Rényi Binomial Random Graph*, a joint project with my batchmate *Sayak Chatterjee*, under the guidance of *Prof. Antar Bandyopadhyay*, as a part of the Random Graphs course in our B.Stat 3rd Year.

Summer 2019	A summer project on application of method of moments to derive some known results, such as Hoeffding's theorem on U-statistics, Wigner's semi-circle law in Random Matrix Theory etc., under the guidance of *Prof. Arijit Chakrabarty.*
Summer 2019	A summer project on Elliptic Curve Cryptography, Pseudo-random objects (PRPs, PRFs etc.) and Hash functions under the guidance of *Prof. Rana Barua.*, as a part of the Summer Internship in Cryptology, offered by the *R. C. Bose Centre for Cryptology and Security, Indian Statistical Institute*, Kolkata.
Winter 2017	Did an independent study on Analytic Number Theory. Obtained a new asymptotic formula for the Chebyshev ϑ function.

Internships and camps

Summer 2019	*Summer Internship in Cryptology*, offered by the *R. C. Bose Centre for Cryptology and Security, Indian Statistical Institute*, Kolkata.
Summer 2019	*Madhava Nurture Camp 2019* at *Chennai Mathematical Institute*, Siruseri, Chennai.
Summer 2018	*Madhava Nurture Camp 2018* at *St. Xavier's College, Kolkata.*
Winter 2015	*INMO 2016 training camp* at *Indian Statistical Institute,* Kolkata.

Publications

1. Ghosh, A. (2019). An asymptotic formula for the Chebyshev theta function. *Notes on Number Theory and Discrete Mathematics*, 25(4), 1-7.

Other projects and presentations

Summer 2020	Presented the paper titled *'What we look at in paintings : a comparison between experienced and inexperienced art viewers'* authored by *Ylitalo, A.K., Särkkä, A., and Guttorp, P.*, as a part of the Statistics Comprehensive course in our B.Stat 3rd Year.
Spring 2020	A Survey on the impact of lockdown on the academic life of students and research scholars of ISI, Kolkata amidst the Covid-19 pandemic, conducted as a part of the Statistics Comprehensive course in our B.Stat 3rd Year.
Fall 2019	Two projects on applications of linear statistical models: (1) Map stitching using linear models and (2) Shape analysis using linear mixed models, as a part of a course on linear statistical models given by *Prof. Arnab Chakraborty*.
Fall 2019	Presented a topic on *Population Census of India, 2011* at the *Sampling and Official Statistics Unit,* ISI, Kolkata.
Spring 2018	Finding solutions to the *Lights Out game* using linear algebra, as a part of a course on linear algebra given by *Prof. Arnab Chakraborty*.

Technical skills

Programming	Proficient in R and C.
Markup/Web	R markdown (basic), HTML (basic) and LATEX (proficient).

Other information

Languages	Bengali (mother tongue), English (fluent) and Hindi (conversational).

Hobbies and interests	○ Maintaining a blog (ghoshadi.wordpress.com) with two objectives:

Hobbies and interests

○ Maintaining a blog (ghoshadi.wordpress.com) with two objectives:
  - To share my own thoughts on different topics in Mathematics and Statistics.
  - To present a collection of notes and articles useful for high school students preparing for Mathematical Olympiads and other competitive examinations.
○ Love to watch movies (who does not!)
○ Playing Chess, solving Sudoku and Rubik's cube
○ Spending time in the library

I hereby declare that all the information provided above are true to the best of my knowledge.

Aditya Ghosh,

January 16, 2021.