AAKASH GHOSH

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BACKGROUND

I am a fifth year undergrad in the department of mathematics and statistics (DMS) at IISER Kolkata.
IISER is designed to bring out the motivated young minds in the nation towards scientific research right from their undergraduate years. As I have progressed through my undergraduate education, I have become more invested in pursuing a fast-paced career around data and finance.

EDUCATION

5 Year Bachelor of Science and Master of Science (BS-MS) Dual Degree Programme
IISER Kolkata — Expected 2024
Relevant Coursework: Machine Learning, Statistics(2 courses), Probability(2 courses), Data structures(in C), Introductory Economics and Econometrics(in R)
I am currently studying combinatorial game theory for my thesis and working on deep learning for an independent study

SKILLS

I am proficient in C/C++, Python and R. In python, I have worked with NumPy, pandas, scikit-learn and TensorFlow.

PREVIOUS EXPERIENCE

Some results on the exponential of a matrix — 2021
Advisor: **Dr. Somnath Basu** — *IISER Kolkata*

- Did readings on analysis and topology.
- Showed $GL_n(\mathbb{R})$ forms a metric space under operator norm. This allows us to show convergence of the series $\sum_{n\in\mathbb{N}} A^n/n!$ and therefore conclude e^A is well defined. I also proved a few related result related to it's determinant. **Link to write-up**

Number theory and Cryptogrphy — 2020
Advisor: **Dr. Avishek Adhikari** — *Presidency University*

- Read about elementary number theory and the required algebra
- Read about basics of cryptography
- Read about visual cryptography and implemented them in python and C++
- Read about secret sharing using Chinese remainder theorem **Link to presentation**

TEACHING EXPERIENCE

- I am a Teaching Assistant for Data Structures and Algorithms for Autumn semester,2023

EXTRA-CURRICULAR ACTIVITIES

- I am very interested in solving puzzles and riddles
- I am quite interested in Chess and other games. Recently, I have been looking for efficient ways of playing them.