

# SHAURYA GOYAL

☎ +91 8454869021 ✉ [shauryagoyal789@gmail.com](mailto:shauryagoyal789@gmail.com) 🌐 [shauryagoyal](https://www.linkedin.com/in/shauryagoyal) 🌐 [shauryagoyall.github.io](https://github.com/shauryagoyal) 🏠 Mumbai

## Education

---

### Indian Institute of Technology, Kharagpur

2020 – Ongoing

*Integrated Master of Science in Economics*

*CGPA: 8.74*

Micro - Specialization in Optimization Theory and Applications (Ongoing)

Grade 12 (HSC), score: 92%

2020

Grade 10 (ICSE), score: 95%

2017

## Research Experience

---

### IIT Kharagpur

July 2021 – Ongoing

*Undergraduate Student Researcher*

*Graph Signal Processing*

- Developing faster, more numerically stable and accurate algorithms for fast fourier transform and principal component analysis by exploiting the substructure in the graph matrix

### IIT Kharagpur

April 2021 – Ongoing

*Undergraduate Student Researcher*

*Evolutionary Biology*

- Conducted a thorough literature survey
- Conducting a phylogenetic analysis of cells using genomic data to understand whether an inside-out or outside-in model is favourable and to understand how mitochondria originated in eukaryotic cells

## Projects

---

### News Feed Tracker

April 2021

- Wrote a program that monitors and filters online news and displays articles matching the user's interests.

### Cipher Encoder/Decoder

April 2021

- Wrote a program that can encrypt/decrypt messages by two methods – shifting all letters by a key chosen by the user and the other by swapping the vowels with any letter of the alphabet.

## Selected Relevant Coursework

---

- |                                  |                      |                           |
|----------------------------------|----------------------|---------------------------|
| • Probability & Statistics       | • M.L. in Genomics*  | • Discrete Maths*         |
| • Partial Differential Equations | • Linear Programming | • Intro. to Data Science* |
| • Monte Carlo Methods (PG)       | • Psychology         | • Numerical Analysis      |
- \* indicates online semester-length course from MIT-OCW

## Technical Skills

---

**Programming:** Python, MATLAB, C

**Other:**  $\LaTeX$ , HTML, CSS, Autocad, MS-Office

## Volunteer Work

---

### Teacher(Independent)

October 2019 – December 2020

- Taught 2 under privileged kids in my locality of grade 5 (to grade 6) math, science and English.
- Led to improved understanding and skill and their grade also improved by nearly 20 percent.

## Leadership / Extracurricular

---

- Active member of Debating Society, IIT Kharagpur
- Selected as Times Scholar 2020 by Times of India Group and awarded a scholarship (Declined)
- Silver Medal in National Taekwondo Championship and 1st Dan Black Belt

**Other Interests:** Guitar, Hiking, Running, Reading, Cooking, Rock music, Star Wars