Swarnadeep Mandal

https://swarnadeep97.github.io

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EDUCATION

- **Indian Institute of Technology, Kanpur** Kanpur, India
  Dual Degree(Bachelor and Master of Technology) in Computer Science and Engineering *2015 – 2020(expected)*

- **Delhi Public School** Haridwar, India
  Class XII CBSE; Percentage: 92.8% *2015*
  Class X CBSE; CGPA: 9.6/10.0 *2013*

EXPERIENCE

- **LinkedIn** Bangalore, India
  Software Engineering Intern *May 2018 - August 2018*
  - Part of the Hadoop team and worked on the project of Hosted Notebooks, a service where Jupyter Notebooks are hosted on a Hadoop cluster with a yarn resource manager.
  - Figured out different ways to remotely submit and debug spark jobs running on a hadoop cluster. Finally made an IntelliJ plugin which automates all the steps and performs remote debugging.
  - Used Java for plugin development. The project needed familiarity with technologies like livy, spark, hadoop, and yarn.

- **Trexquant LP** Stamford, CT
  Global Alpha Researcher *June 2017 - Nov 2017*
  - Selected as an external researcher to develop strategies for medium frequency trading.
  - Used machine learning models to design new trading signals(alphas) and made filter functions for the same.
  - Primarily used python for implementing the models on a Jupyter Notebook. Also used proprietary technologies of Trexquant for making fit functions on the strategies to make them ready for paper trading.

ACADEMIC AND PROGRAMMING ACHIEVEMENTS

- Secured Rank 50 in the ICPC Amritapuri Regionals in 2016 amongst more than 250 teams who cleared the online round.
- Secured Rank 25 and 52 in ICPC Chennai Regionals in 2016 and 2017 respectively amongst about 120 teams.
- Secured all India Rank 4730 in JEE Advanced among 150,000 shortlisted candidates from across the country.
- KVPY Fellowship 2015, awarded by Government of India to around 2000 students each year from all over India.
- NTSE scholarship, conferred by Government of India. Awarded to around 1000 students each year from all over India.
- Frequent participant on various online programming platforms. Handle: *doublegamer26*

KEY PROJECTS

- **Fair Allocation of Indivisible Goods [Game Theory]** *April 2018*
  - Studied and presented a paper on distribution of indivisible goods among n agents as part of course project.

- **Modelling Context Adaptive Algorithms [Algorithms]** *April 2017 - June 2017*
  - Worked on designing and implementing energy aware security protocols.

- **Readability App for English Language [App Development]** *June 2017 - July 2017*
  - Made an application to mark the difficulty of a text using the Flesh Kincaid readibility test.

- **Extended NachOS [Operating Systems]** *Sep 2017 - Nov 2017*
  - Implemented and extended the NachOS to perform basic operating system functions

SKILLS AND INTERESTS

- **Interests**: Data Structures, Design and Analysis of Algorithms, Complexity Theory
- **Languages**: C/C++, Java, Python
- **Technologies**: LaTeX, Bash, Git, GDB, vim, MySQL, IntelliJ

POSITIONS OF RESPONSIBILITY

- **Secretary, Programming Club, IITK**: Part of a 20 member team to increase programming culture in the campus.
- **Academic Mentor, Introduction to Programming**: Responsible for taking remedial classes and one-one mentoring.
- **Senator BT/BS Y15, Students' Senate**: One of the 6 elected student representatives for a batch of over 800 students.
- **Student Guide, Counselling Service, IITK**: Personally helped 3 students adjust to the rigours of campus life.

RELEVANT COURSES

Data Structures and Algorithms	Design and Analysis of Algorithms	Computational Geometry
Discrete Mathematics	Complexity Theory	Randomized Algorithms
Operating Systems	Topics in Internet Techonologies	Database Management Systems