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**** *B-307, Lala Lajpat Rai Hall of Residence, Indian Institute of Technology, Kharagpur – 721302 (India)*

## EDUCATION

**Indian Institute of Technology (IIT), Kharagpur Kharagpur, India**

Integrated Masters of Science (M.S.) in Mathematics & Computing Expected 2017

* Micro-specialization in Optimization Theory and Applications
* **GPA:** 8.05/ 10.0 Absolute Grading Scale
* Department rank **4th** and **5th** in 6th and 5th semester respectively and currently among the **top 10** students in the department.
* **Relevant Coursework:** Optimization Techniques, Non-Linear Programming, Machine Learning, Probability and Statistics, Regression & Time Series, Linear Algebra, Operations Research, Database Management, Design & Analysis of Algorithms.

## ACHIEVEMENTS /AWARDS

* Selected for the prestigious [**Google Summer of Code’16 program**](https://developers.google.com/open-source/gsoc/).
* Amongst the **top 0.65%** of over 506,000 appearing candidates in Joint Entrance Examination-2012.
* Awarded ​ **Innovation in Science Pursuit for Inspired Research (INSPIRE) Scholarship** ​ from the Department of

Science & Technology (DST), Government of India.

* Only student from IIT Kharagpur to have won gold medal in both [**Inter IIT Tech**](http://www.interiittech.com/) and [**Inter IIT Sports Meet**](https://en.wikipedia.org/wiki/Inter_IIT_Sports_Meet).
* Awarded **ALUMNI CUP** for the **Best Sports Person** of the year, IIT Kharagpur for the academic session 2014-15.

## internships/PROJECTS

* Implementing [**Complex Semidefinite Programming**](http://epubs.siam.org/doi/pdf/10.1137/04061341X) in [Convex.jl](http://convexjl.readthedocs.io/en/latest/)as Google Summer of Code’16 Student **(Apr-Aug’16)**
* The present approach is to convert a complex SDP to real SDPs manually which is time-consuming and non-intuitive. I am enabling the Convex.jl package to handle complex SDPs making it useful for power optimization in AC circuits.
* Worked as a **Student Trainee** in **Samsung Research Institute, Bangalore.**  **(May-July’16)**
* Enabled smart “decision making” regarding GBR bearer in MME of the LTE system using machine learning.
* Methods for **Cardinality Constrained Portfolio Optimization**.  **(Jan-Feb’16)**
* Used Mixed Integer Programming module in MATLB to obtain the Cardinality Constrained Efficient Frontier. Also implemented heuristics like Genetic Algorithm to improve the time complexity of our solution. Won **gold medal** beating teams across different IITs in India at [**4th Inter IIT Tech Meet 2016**](http://www.interiittech.com/).
* Worked as a **data scientist intern** in [**Flutura Decision Sciences & Analytics**](http://www.flutura.com/)**, Bangalore.**  **(May-July’14)**
* Responsible for setting up an integrated big data storage and processing platform using **Hadoop and Spark** and benchmarked the **running time and the accuracy** of different machine learning algorithms on dataset of upto **100GB**.
* Worked as a research assistant at [**Institute of High Performance Computing**](http://www.a-star.edu.sg/ihpc)**, Singapore.**  **(May-July’15)**
* Created python based **multithreaded crawlers** for extracting the data from LTA website and storing, periodically creating backup of the data in MySQL database. Also created the graph of the Singapore road network from the **OpenStreetMap** data using **NetworkX** and measure of centrality of each bus stops in Singapore.
* Case Study on **Theft Analytics** trying to predict users who are likely to resort to electricity theft**.** **(Jan-Feb’15)**
* Used ensembling of different **one class classifiers** like **One Class SVM, one K-Nearest Neighbors** to train the model on the data which had only samples from positive class to predict fraudulent customers. Won **gold medal** beating 19 different teams across IIT Kharagpur.
* Frontend Developer at [**Clozerr**](https://play.google.com/store/apps/details?id=com.clozerr.app&hl=en)**, Chennai.** **(Nov-Dec’16)**
* Implemented a complete user interface in the form of a mobile and desktop web app using AngularJS.

## technical skills

* **Programming:** C/C++, Java, Python, Julia
* **Data Analytics:** Spark (MLlib, GraphX), R
* **Databases:** MySQL
* **Operating Systems:** Windows, Ubuntu

## activiTIes

**Chief-Editor,** [**Awaaz IIT Kharagpur**](http://awaaziitkgp.org/)**:** Managing a team of over 11 sub-editors and 34 writers in putting together a monthly newspaper that reach 10,000 readers, facilitating communication between IIT’s top officials and the student body.

**Member, Cricket Team:** Represented IIT Kharagpur in various Inter University Tournaments and the Inter IIT Sports Meet.

**Coordinator, Data Analytics, LLR Hall of Residence:** Jointly trained a team of sophomores from LLR Hall for the participation in the Technology General Championship.