

# Rajat Garg

Computer Science & Engineering (B. Tech), IIT Kharagpur  
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rajatgarg149.github.io

## EDUCATION

### IIT KHARAGPUR

B.TECH IN COMPUTER SCIENCE  
2018 | Kharagpur, West Bengal

### BARFANI ACADEMY

10+2 HIGHER SECONDARY SCHOOL  
Indore, Madhya Pradesh

### GUJARATI SAMAJ SCHOOL

HIGHER SECONDARY SCHOOL  
Indore, Madhya Pradesh

## PROFILES

Github:// [rajatgarg149](#)

LinkedIn:// [rajat-garg-2212a5a1](#)

## COURSEWORK

Deep Learning  
Artificial Intelligence  
Image Processing  
Machine Learning  
Operating Systems  
Networks  
Regression & Time Series  
Software Engineering  
Probability & Statistics  
Linear Algebra  
Algorithms  
Programming and Data Structures

## CERTIFICATES

### COURSERA

Machine Learning, Andrew Ng  
License : KFZKX48CSCWN  
Data Science Python, Michigan (Spec.)  
License : LM74P8XQFHUA  
Neural Networks & Deep Learning  
License : ZGDSA4CZ8ZZG

## SKILLS

### PROGRAMMING

Python • Java • C  
C++ • R  
HTML • CSS  
MySQL • Scala

### FRAMEWORKS

Apache Spark  
Django

## EXPERIENCE

### QUANTINSTI | CONTENT DEVELOPER & RESEARCHER

May 2018 – Jul 2018 | Dec 2017 – Jan 2018 | Mumbai, India

- Design, develop and deploy an automated optimised technical pattern search 'charting' on stock data, flexible to update patterns and evaluates market.
- Documented and tested a well-built trading platform Quantra Blueshift.
- Stock Prediction using Recurrent Reinforcement Learning. Sharpe's ratio as reward function, M-previous returns as policy and trader function as action.

### SAMSUNG R & D, BANGALORE | SUMMER TRAINEE

May 2017 – July 2017 | Bangalore, India

- Developed computational models for blood glucose monitoring through the Near Infrared (NIR) Spectroscopy, proving feasible non-invasive techniques.
- Multi-wavelength reflectance spectra were processed for computation.

## PROJECTS

### COMPANY NETWORK PREDICTION | SOCIAL NETWORK ANALYSIS

Jul 2018 – Sep 2018 | Prof. Daniel Romero

- Company email network mapped on networkx used to categorize department and management position salary and predicting future connections.
- Features created using scores for different graph algorithms like PageRank, etc.

### PARAPHRASE SIMILARITY CHECK | APPLIED TEXT MINING

Aug 2018 – Oct 2018 | Prof. V. G. Vinod

- Built paraphrase quality predictor with document path similarity method.
- Modelled corpus into a distribution of different topics, where a topic is a distribution over words.

### WIKIPEDIA DUMP PROCESSING | BIG DATA ESSENTIALS

Dec 2018 – Present | Mr. Alexey A. Dral

- Word count program to process Wikipedia dump using MapReduce.
- Most occurred collocations listed using npmi on bigrams in Wikipedia dump.

### INTERACTIVE CUSTOM VISUALIZATION | APPLIED PLOTTING

Sep 2018 – Dec 2018 | Prof. Christopher Brooks

- Built a custom visualization implementing bar coloring and adding onclick events interactivity for user threshold selection.
- Created subplots with shared axis to visualize multi-scaled Ann Arbor statistics.

### RECOMMENDATION OF WIKI PAGES | AUTOMATED WEB SCRAPING

May 2016 – June 2016 | Prof. Pawan Goyal

- Programmed an automated script which text mines the wikipages within the same category of given links and stores the tagwise processed information.
- Built parallel functioning operations using Apache Spark on top of the script performing text-search, word frequency count and similarity valuation.

## AWARDS

|      |                            |   |
|------|----------------------------|---|
| 2018 | Special Mention            | Radha Krishnan Hall of Residence        |
| 2017 | Best Unrated               | All India Chess Federation- Open Rating |
| 2014 | 290 <sup>th</sup> /1.5 lac | JEE-Advance                             |
| 2010 | Represented Madhya Pradesh | School Games Federation of India        |