

## Biswajit Paria

UG (3rd year), Computer Science and Engineering  
Indian Institute of Technology Kharagpur

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### Education

#### Indian Institute of Technology Kharagpur

B.Tech M.Tech Dual Degree (5 year program)

Undergraduate 3rd year

Current CGPA (Semester 5) : **9.74/10.00**

Kharagpur, India

2012 - 2017 (expected)

#### Kendriya Vidyalaya No. 1, IIT Kharagpur

All India Senior School Certificate Examination (CBSE Board)

Aggregate Score: 92.4%

Kharagpur, India

2012

#### Kendriya Vidyalaya No. 1, IIT Kharagpur

All India Secondary School Examination (CBSE Board)

CGPA: 9.8/10.0

Kharagpur, India

2010

### Relevant Courses Taken

Programming and Data Structures

Introduction to Electronics

Formal Languages and Automata Theory

Computer Organization and Architecture<sup>#</sup>

Computer Organization Laboratory<sup>#</sup>

Algorithms-I

Signals and Systems

Software Engineering

Compilers<sup>#</sup>

Compilers Laboratory<sup>#</sup>

Discrete Mathematics

Switching Circuits and Logic Design

Probability and Statistics

Algorithms-II<sup>#</sup>

Matrix Algebra<sup>#</sup>

<sup>#</sup>To be completed before Dec 2014

### Projects and Papers

#### A Faceted Recommendation System for Scientific Articles (FeRoSA)

Guides: Prof. Animesh Mukherjee, Prof. Pawan Goyal

Dec 2013-Mar 2014

- Developed a Paper Recommendation system based on citation relations and context.
- Generated citation tags using a Maximum Entropy Classifier on a set of selected features mainly consisting of linguistic features.
- Extracted topics from the paper texts using an LDA utility.
- Citation tags were used along with LDA output to generate citation recommendations.
- Created a GUI for the system.

#### Segmented message broadcast in delay tolerant networks: An analytical and numerical study

Guides: Prof. Animesh Mukherjee, Prof. Niloy Ganguly

May 2013

- Developed and simulated different Broadcasting strategies on different Network Topologies and measured relevant parameters.
- Verified asymptotic expressions for expected delays.
- Computed parameters for optimal Broadcasting.

#### On Farey Table and its Compression for Space Optimization with Guaranteed Error Bounds

Guide: Prof. Partha Bhowmick

May 2012

- Studied Number-Theoretic properties of Farey Sequences.
- Developed and implemented compression techniques for the Farey table.
- Developed mathematical expressions for maximum and average error in compression.
- Developed mathematical expressions for the number of columns in the compressed table.

## Achievements and Scholarships

<b>Overnite-2014 Programming Competition (ACM Certified)</b> My team BitBees secured the <b>3rd rank</b> in the onsite finals.	2014
<b>International Online Programming Contest (IOPC), Techkriti- IIT Kanpur</b> My team BitBees secured the <b>25th rank</b> among a 1000 international teams.	2014
<b>Sudocode, Kshitij- IIT Kharagpur</b> My team BitBees secured the <b>1st rank</b> . Event consisted of three problems based on Algorithms, Image Processing and NLP.	2014
<b>ACM ICPC Regionals Kanpur Site</b> My team BitBees secured the <b>11th rank</b> in the online prelims and <b>13th rank</b> in the onsite regionals.	2013
<b>Marauder's Map, Kshitij- IIT Kharagpur</b> Got the freshers' prize and <b>5th rank</b> overall in Marauder's Map, an AI and Image processing event.	2013
<b>Jagadish Bose National Science Talent Search Scholar</b> Selected among top <b>30</b> candidates in the state of West Bengal for the scholarship program.	2013
<b>IIT Joint Entrance Examination (IITJEE)</b> All India Rank- <b>671</b> in <b>General</b> category among half a million candidates.	2012
<b>Indian National Physics Olympiad (INPhO)</b> Qualified among <b>top 30</b> candidates to attend the Physics Orientation cum Selection Camp for the International Physics Olympiad.	2012
<b>Zonal Informatics Olympiad (ZIO)</b> Among <b>top 253</b> candidates all over India.	2012
<b>Kishore Vaigyanik Protsahan Yojana (KVPY)</b> All India Rank- <b>7</b> . Scholarship Program funded by the Department of Science and Technology, India.	2011
<b>Indian National Mathematics Olympiad (INMO)</b> All India Rank- <b>6</b> . Selected to attend the International Mathematics Olympiad Training Camp -2010 and 2011.	2010
<b>Kendriya Vidyalaya Sangathan (KVS) Junior Mathematics Olympiad</b> All India Rank- <b>2</b> . Held in all KVS schools.	2010
<b>Australian Mathematics Competition (AMC)- Intermediate Division</b> Recieved a Gold Medal along with <b>23</b> other medallists in the world.	2009

## Programming Skills

<b>Advanced</b>	C, C++, JAVA
<b>Basic</b>	TeX, SQL, BASH, PYTHON, MATHEMATICA

## Other Activities

Programming Contests, Math Olympiad Teaching and Math Olympiad Interhall competitions, Drawing, Painting

## References

<b>Dr. Animesh Mukherjee</b> Assistant Professor, Dept. of Computer Science and Engineering Indian Institute of Technology Kharagpur	animeshm@cse.iitkgp.ernet.in
<b>Dr. Niloy Ganguly</b> Associate Professor, Dept. of Computer Science and Engineering Indian Institute of Technology Kharagpur	niloy@cse.iitkgp.ernet.in
<b>Dr. Partha Bhowmick</b> Associate Professor, Dept. of Computer Science and Engineering Indian Institute of Technology Kharagpur	pb@cse.iitkgp.ernet.in