Satwant Rana

Personal Data

Undergraduate
Mathematics and Computing
Indian Institute of Technology, Delhi

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Education

July 2012 - July 2017 — Integrated M.Tech in Mathematics and Computing
Indian Institute of Technology, Delhi
GPA: 8.6/10.0

Relevant Courses

Mathematics:	Combinatorics, Discrete Maths, Modern Algebra, Optimisation, Numerical Methods, Linear Algebra, Analysis, Probability and Stochastic Processes, Calculus.
Computer Science:	Algorithms, Data Structures, Computer Architecture, Operating Systems, Natural Language Processing, Neural Networks
Electrical:	Digital Design, Signal and Systems
Other:	Econometrics
Online:	Machine Learning, Probabilistic Graphical Models

Projects

Present – May 2014 — *The Next Generation of Open Information Extraction*
The project aims at creating the next generation of Open Information Extraction, a paradigm of IE aimed at extracting arbitrary relations. The main aims of the project are increasing precision and recall of the current version of OpenIE, in the domains of list extraction, semantics of conjunctions and numeral understanding

Fall 2014 — *Tweet Tokeniser*
The project aims at creating a tokeniser for tweets, segmenting tweet sentences into invidual tokens of words or entities. As an additional feature the tokeniser will normalise dates in the sentences as well.

Spring 2013 — *A data structure for company hierarchy*
Implemented a Data Structure for storing Hierarchical Structure of a Company, with the features of quickly adding, deleting, and printing employees; along with an additional feature of finding the Lowest Common Ancestor of two employees. Implemented an AVL Tree for logarithmic time queries in the data structure.

Fall 2012 — *DFS using higher order functional programming*
Used higher order functions in Standard ML to implement a functional algorithm for Depth First Search. Implemented functional algorithms for Subset Sum problem, Knight's Tour problem and Stable Marriage problem using the higher order Depth First Search function.

Awards and Honours

2014 Shortlisted for Summer Undergraduate Research Award, IIT Delhi
2012 9th at ACM-ICPC Asian Regionals
2012 Attended Indian Training Camp for IOI

2012	AIR 817 in IIT JEE
2012	AIR 85 in AIEEE
2012	Became KVPY fellow
2011	Rank 1 in RMO, Delhi region
2011	National Top 1 percentile award in NSEP and NSEA in 2012
2010	Qualified NSEJS and NSEA Jr. in 2010

Sport Programming

Codechef:	satwantrana, currently ranked 184 in short contests
Codeforces:	satwant, blue rated
Topcoder:	satwant123, blue rated
Awards:	3rd in ACM - Asian Programming Contest, conducted by IIT Delhi 9th and 30th in ACM-ICPC Asian Regionals 2012 and 2013 resp.

Technical Skills

Languages:	C++, Java, Python, SML-NJ, php, html, CSS, JS
Softwares/Tools:	git, Django, web2py, ubuntu, LaTeX

Interests and Activities

Algorithms, AI, ML, Discrete Maths, Competitive Programming, Football, Movies, Travelling