Kunal Singhal

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Education

Indian Institute of Technology Delhi　　　　　　　　　　　New Delhi, India
Bachelor of Technology　　　　　　　　　　　　　　　　　　　　2012 - 2016
CGPA: 9.2

Work Experience

- **Co Founder, Atomicles**　　　　　　　　　　　　　　　　　　　Delhi
  A content discovery platform that gives you personalized short reads　　2015 - Present
  - currently working on it as a side project

- **Software Engineering Intern**　　　　　　　　　　　　　　Facebook, CA
  Java Infrastructure team under Avik Chaudhuri　　　　　　　Summer 2015
  - developed a transpiler to convert TypeScript declaration files to Flow declaration files

- **Reseach intern**　　　　　　　　　　　　　　　　　　　　UC Irvine, CA
  ICS department under Prof. Sharad Mehrotra　　　　　　　　Summer 2014
  - worked on classification of tweets based on Personally Identifiable Information

Projects

- **Zero Overhead On-chip Monitoring**　　　　　　　　　　　　IIT Delhi
  with Abhay Mitra under Prof. P.R. Panda and Prof. Sanjeeva Prasad　　Aug 2015 - May 2016
  - runtime verification of programs on a separate FPGA circuit
  - paper submitted in RV16

- **Visualizing CharRNNs**　　　　　　　　　　　　　　　　　　IIT Delhi
  course project with Abhay Mitra under Prof. Subhashis Banerjee　　　Fall 2015
  - visualizing hidden states in generative character level RNN (with LSTM cells)

- **Genre and gender classification of song lyrics**　　　　　　IIT Delhi
  course project with Archit Sachdva under Prof. Mausam　　　November 2014
  - structural as well as word level features used in an SVM classifier

- **No Dues System for IIT Delhi**　　　　　　　　　　　　　　IIT Delhi
  with Shubham Jindal and Phani Mahesh　　　January 2015 - August 2015
  - SPA built using Mithril with API served by a express + node server

- **Next generation Open Information Extraction**　　　　　　IIT Delhi
  Summer Project with Satwant Rana and Prof. Mausam　　Summer 2014 - January 2015
  - improved perfomance of openIE on sentences containing lists

- **AI Game Player for Connect n,m,k**   IIT Delhi
  course project under Prof. Mausam   *Jan 2014 - Apr 2014*
    - simple mini-max and alpha beta pruning with hand crafted heuristics

- **Prolog Interpreterl**   IIT Delhi
  course project under Prof. Sanjeeva Prasad   *Feb 2014 - Mar 2014*
    - ideas of backtracking and unification of terms were exploited

- **Single Cycle Processor Design**   IIT Delhi
  course project under Prof. Smruti Ranjan Sarangi   *Feb 2014 - Mar 2014*
    - HDL description of a risc processor
    - being used as online reference for the book An Introduction to Computer Architecture

Sport Programming

- ICPC 2016 World Finalist, Thailand (Team Angle)

- ICPC 2015 World Finalist, Morocco (Team Angle)

- Indian team member in **International Olympiad in Informatics, 2012**

- TopCoder: Yellow Rated - 1758 (among top 20 in India)

Awards, Grants & Honours

International Olympiad in Informatics 2012   JULY 2012
Indian Team Member

International Physics Olympiad 2012   JULY 2012
Silver Award

Asian Physics Olympiad 2012   MAY 2012
Silver Award

Indian National Mathematics Olympiad 2011   2011
All India First Position

Institute Silver Medal for Academic Excellenece   FEB 2013

Aditya Birla Scholarship 2012   SEP 2012

OP Jindal Engineering and Management Scholarship 2012   SEP 2012

KVPY Scholarship 2011   2011

Designing and Coding Skills

Extensive	JAVASCRIPT, REACTJS, PYTHON, C++, OCAML
Intermediate	WEB2PY, NODEJS, MATLAB, JAVA
Basic	NUMPY, CSS