Prannay Khosla *July 13, 1997*

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Sophomore, IIT Kanpur
Functional Programming and AI enthusiast
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Education

Indian Institute of Technology, Kanpur — Kanpur, Uttar Pradesh, India
Bachelor of Technology, Computer Science and Engineering *July, 2015 – May, 2019 (Expected)*
Cummulative Grade Point Average 9.5/10.0

Delhi Public School, R.K. Puram — New Delhi, India
All India Senior School Certificate Examination (AISSCE) *2015*
- Cummulative 96.6 percent (Percentile 99.74)
- National Top 1 percent in Mathematics (100 percent) and Computer Science (98 percent).

Class 10 Board Certification *2013*
Cummulative GPA: 9.8/10.0

Academic and Co-curricular Acheivements

All India Rank 548 in JEE Advanced 2015 among 150,000 students

All India Rank 192 in JEE Mains 2015 among 1,500,000 students (Percentile 99.97)

Awarded Gold Medal in 2014 for academic excellence for 7 consecutive years

National Standard Examination, Physics Qualified for second stage (INPhO) in year 2014 and ranked in the top 1 percent of all appearing candidates.

Projects/ Research Experience

Optimizing MaxSAT and Inferring Grammars (Compilers / Logic) — May 2016 - July 2016
Supervisor : Prof. Subhajit Roy *CSE Deptt., IIT Kanpur*
- Worked on building efficient algorithms to find MaxSAT instances using GPUs and Parallel programming
- Implemented algorithms with CUDA and tested against standard benchmarks
- Worked on abstracting LALR languages as Logic
- Implemented abstraction with z3 Python library

Advanced Track, ESC101 (Functional Programming / Systems / AI) — January, 2016 - April, 2016
Supervisor: Prof. Sunil E. Simon *CSE Deptt., IIT Kanpur*
- Creating an efficient Online Judge for Programs written in C/C++/Haskell
- Efficient use of concurrent programming and deployed using the Flask Framework
- Built parsers for LR(k) gramars with Haskell
- Built a system to check if grammar is LL(1) using efficient implementation of Parsing Algorithms
- AI for solved games with faster implementations taking advantage of Lambda Calculus

Talk on Error Correcting Codes (Discrete Mathematics) — November 2016
Instructor: Prof. Nitin Saxena *CSE Deptt., IIT Kanpur*
Delivered a talk on Error Correcting as an extra project, part of the discrete mathematics course. The talk aimed at familiarising the audience with Symmetric Channels and Linear codes and related mathematics it's direct application as seen in DNA.

Technical Skills

Programming Languages Go, Python, Haskell, C/C++, Java/JavaScript, Scheme

Machine/Deep Learning Text/ Image Representation, RNN,DNN, Tensorflow

Parallel/Concurrent Programming CUDA C, Haskell, Go, Erlang

Development Arch Linux, Gentoo, Docker, Haskell Stack development

Web/App Development Node.JS (Express), Hakyll, AngularJS, Ruby on Rails

Relevant Courses

Introduction to Programming (A*)	Natural Language Processing (Audit)
Discrete Mathematics (A)	Computational Number Theory (*)
Organization (*)	Data Structures and Algorithms (*)
Real Analysis (A)	Linear Algrebra and ODE (A*)
Game Theory (A)	

* : Presently undertaken
A* : Exceptional Course Performance

Interests

Cryptography	Programming Languages	Natural Language Processing
Number Theory	Game Theory	Linguistics
Functional Programming	OpenSource Development	Compilers
Machine Learning	Economics	Classical Piano

Positions of Responsibility

Secretary, Science And Technology, Hall Executive Committee, Hall 2 (2016-17) : Responsible for looking after interests and management of Science And Technology resources in the hall alongwith managing participation of 300 students during Takneek, inter hall Technical Fest at IIT Kanpur.

Secretary, Programming Club (2016-17)
Organized and contributed to Introductory Lectures and workshops organized by the club along with the Fresher's Programming Contest and Blackbox, an esoteric programming language competition.

Head of Web Development at ExunClan the High School Computer Science enthusiast's Club.
- Maintained the school and club's websites and blogs and managed high traffic during InterSchool online competitions.