

Sidhant Nagpal

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SKILLS

Deep Learning • Algorithms • Math
Reinforcement Learning • Open Source

LANGUAGES

Python • C • C++ • Julia • Java
SQL • Bash • LaTeX • HTML • CSS

LIBRARIES & TOOLS

PyTorch • Keras • FluxML • NumPy
Jupyter/Colab • Selenium • Flask
Git • Matlab/Octave • Postman

EDUCATION

UNIVERSITY OF DELHI BE IN COMPUTER SCIENCE

2015-19 (expected) | Delhi, India
Netaji Subhas Institute of Technology
Percentage: 82.16% (upto 6 sems)

BAL BHARATI PUBLIC SCHOOL

Grad. May 2015 | Pitampura, Delhi
AISSCE (Class XII): 96%
AISSE (Class X): Cum. GPA 10.0/10.0

PROJECTS

• Deep Learning for CV

GANs, Image Denoising (Residual Learning),
Style Transfer, Transfer Learning using CNNs

• Deep Learning for NLP

Text Classification using FastText (bag of
tricks) model, Sentiment Analysis using GloVe
and LSTM model, Language Model using GRU

• Deep Learning for RL

DQN (Deep Q-Network) and Double DQN
for Q-learning to solve CartPole problem

• Game Playing AIs

Intelligent solvers for N-Puzzle, N-Queens,
Tic-Tac-Toe, Sudoku using Heuristic Search,
Minimax, Hill Climbing, Simulated Annealing

• Formal Language & Automata

Implemented Finite, Push-Down Automata,
Turing Machine for Formal Languages

• GitHub Mini-Projects (Python)

Web App (Flask) for real-time ranking based
on Elo rating and Web Scraper (Selenium) for
tracking progress on Programming Judges

LINKS

Github:// [SidhantNagpal](#)
LinkedIn:// [SidhantNagpal](#)
Web:// [sidhantnagpal.com](#)

EXPERIENCE

GOOGLE SUMMER OF CODE | DEVELOPER FOR SYMPY

Feb 2018 - Aug 2018 | Remote *Mentor: Prof. Kalevi Suominen (University of Helsinki)*

- Implemented **discrete transforms, convolutions, recurrences** modules using efficient algorithms and paradigms (Dynamic Programming, Divide and Conquer) for **SymPy**, a **NumFOCUS** sponsored Python library for Symbolic Mathematics
- Contributed to SymPy modules for matrices, differential equations, solvers, combinatorial functions, SymPy bot (based on GitHub API) and Sphinx docs

INTUIT | SOFTWARE ENGINEERING INTERN

May 2018 - Jul 2018 | Bangalore, India

Manager: Karthik Krishna (QBDT)

- Incorporated encryption logic and distributed message queue to decouple the monolith - **IntuitMarket.com** (QuickBooks e-commerce) for AWS migration
- Contributed to Intuit Data Protection Services (IDPS) SDK for Cryptography
- Hackathon runner-up for implementing IoT & AI-based solutions for **Intuit Mint** to automate expense tracking using NFC trigger and Google Assistant

INDIAN INSTITUTE OF TECHNOLOGY | RESEARCH INTERN

Jun 2017 - Jul 2017 | Kanpur, India *Supervisor: Prof. Raghunath Tewari (IIT Kanpur)*

Worked on the Dynamic DFS problem in Graph Theory and presented an efficient algorithm based on Heavy-Light Decomposition from the paper [arXiv:1502.02481v3](#)

POSITIONS OF RESPONSIBILITY

- Project Collaborator, SymPy** Active contributor and Pull Request reviewer
- Mentor, Google Code-in** Mentored students for Open Source under SCoRe lab
- Delegate, PyCon India** Organised and conducted a developer sprint for SymPy
- Volunteer, Intuit** Created tactile stories for blind children (We Care & Give Back)
- Volunteer, WARUDA NGO** Created awareness about computer literacy

PROGRAMMING EVENTS

2018 Rank 464/24K+

2017 Rank 1668/25K+

2017 Rank 105/1K+

2017 Rank 60/800+

2017 Rank 26/250+

2017 Rank 41/100+

2016-18 Top 200/300K+

2015-18 Solved 1000+ problems

Google Code Jam Round 3 (semi-final)

Google Code Jam Round 2 (quarter-final)

Google Kickstart Round G

Google Kickstart Round B

ACM-ICPC Asia Regionals, Amritapuri

ACM-ICPC Asia Regionals, Gwalior

Sphere Online Judge (SPOJ)

Programming Judges (Codeforces, SPOJ, etc)

ACHIEVEMENTS

2016-17 Merit Scholarship

2016 Ramanujan Award

2015 99.81%tile among 1.3M+

2015 Fellowship Award

2014 Top 1.33% among 3L+

2013 Best Player & Team Captain

2011 Bronze Medallist

2010 IOM Silver Medallist

2010 IMMO Silver Medallist

2008-15 Scholar Platinum Medal

Dean's Merit List, Computer Eng. Dept.

Math courses, Computer Eng. Dept.

Joint Entrance Examination (JEE) Main

Kishore Vaigyanik Protsahan Yojana (KVPY)

National Talent Search Examination (NTSE)

Inter-School Hockey Tournament

Inter-Zonal Hockey Tournament

International Olympiad of Mathematics

International Master Mathematics Olympiad

Academic excellence for 8 years, High School