# Sidhant Nagpal

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# SKILLS

## **TECHNICAL**

Algorithms • Data Structures • APIs Artificial Intelligence • Open Source Applied Mathematics • Cryptography

#### **PROGRAMMING**

Python • C++ • C • Shell • LaTeX SQL • Java • Android • HTML • CSS Git • Travis CI • AWS SQS • DialogFlow Flask • Selenium • BeautifulSoup Matlab • Octave • SIMD • Assembly

## **EDUCATION**

## UNIVERSITY OF DELHI

BE IN COMPUTER SCIENCE

2015-19 (expected) | Delhi, India Netaji Subhas Institute of Technology Percentage: 82.16% (Top 5%)

#### **BAL BHARATI PUBLIC SCHOOL**

Grad. May 2015 | Delhi, India AISSCE (Class XII): 96% AISSE (Class X): CGPA 10.0/10.0

# **PROJECTS**

SymPy

Python library for Symbolic Mathematics

• Intuit Mint (Android)

Expense tracking automation using Google Assistant (AI) and NFC Trigger (IoT)

• Game Playing Als

Intelligent systems for solving N-Puzzle and Tic-Tac-Toe using Search Trees

Ranking Application

Python Web App for Elo Rating Algorithm

• Breakout (Android)

Android game based on DX Ball

• Algorithmic Progress Visualizer
Task automator, Web scraper and visualizer

# LINKS

Github://SidhantNagpal LinkedIn://SidhantNagpal Twitter://@\_SidhantNagpal

# **EXTRA CURRICULARS**

Bronze Medallist, Hockey Inter-Zonals Bronze Medallist, Hockey Zonals Best Player & Team Captain, Inter-School

# **EXPERIENCE**

#### GOOGLE SUMMER OF CODE | DEVELOPER FOR SYMPY

Apr 2018 - Aug 2018 | Remote

- 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 bot (based on GitHub API) and Sphinx documentation

#### **INTUIT** | Software Engineering Intern

May 2018 – Jul 2018 | Bangalore, India

- Implemented encryption logic and distributed message queue for decoupling the IntuitMarket.com (QuickBooks E-commerce) monolith for AWS migration
- Contributed to IDPS (Intuit Data Protection Services) SDK for Cryptography
- Spotlighted for presenting IoT-based and AI-based solutions for Intuit Mint

## RESEARCH

## INDIAN INSTITUTE OF TECHNOLOGY | UNDERGRAD RESEARCHER

Jun 2017 - Jul 2017 | Kanpur, India

Studied the Dynamic Depth First Search problem in Graph Theory and presented an efficient algorithm based on the research paper arXiv:1502.02481v3 by IIT Kanpur

## POSITIONS OF RESPONSIBILITY

PyCon India (PSF): Technical speaker for scientific computation using SymPy SymPy (NumFOCUS): Project collaborator responsible for reviewing Pull Requests We Care & Give Back (Intuit): Volunteer for creating tactile stories in Braille WARUDA (NGO): Volunteer for creating awareness about Computer Literacy

# PROGRAMMING EVENTS

2018	Top 2/15	Intuit Intern Hackathon (Hack-Attack)
2018	Rank 464/24K+	Google Code Jam Round 3 (semi-final)
2017	Rank 1668/25K+	Google Code Jam Round 2 (quarter-final)
2017	Rank 105/1K+	Google Kickstart Round G
2017	Rank 60/800+	Google Kickstart Round B
2017	Rank 26/250+	ACM ICPC Asia Regionals, Amritapuri
2017	Rank 41/100+	ACM ICPC Asia Regionals, Gwalior
2016-18	Top 200/300K+	Sphere Online Judge (SPOJ)
2015-18	Solved 1000+ Problems	Online Judges for Programming

# **ACHIEVEMENTS**

2016-17	Merit Scholarship Award	Academic courses, University
2016	Ramanujan Award	Mathematics courses, University
2016	Section Rank 1/70	Computer Science courses, University
2015	99.81 percentile for 1.3L+	Joint Entance Examinantion (JEE) Main
2015	KVPY Fellowship Award	Kishore Vaigyanik Protsahan Yojana
2008-15	Scholar Platinum Medal	Academic courses, High School
2014-15	Merit Scholarship Award	Science courses, High School
2014	Top 1.33% of 3L+	National Talent Search Examination (NTSE)
2011	Gold Medallist	English courses, High School
2010	IOM Silver Medallist	International Olympiad of Mathematics
2010	IMMO Silver Medallist	International Master Mathematics Olympia

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