

# Sidhant Bansal

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## EDUCATION

### NATIONAL UNIVERSITY OF SINGAPORE

**BCOMP IN COMPUTER SCIENCE**  
Minor in Mathematics  
August 2017 - May 2021  
CGPA: 4.74/5.0

### DELHI PUBLIC SCHOOL DWARKA

Grad. May 2017 | Delhi, India  
Grade 12 - 95.4%  
Grade 10 - 10 GPA  
President of the **computing club**

## COURSEWORK

Design and Analysis of Algorithms  
Randomized Algorithms\*  
Machine Learning\*  
Computer Networks  
Parallel and Distributed Algorithms\*  
Advanced Linear Algebra  
Competitive Programming  
Software Engineering  
\* Ongoing Courses

## TEACHING

Data Structures and Algorithms:  
**Fall 2018, Spring 2018, Fall 2019**

## SKILLS

### EXPERIENCED:

• C++ • Ruby • Javascript

### INTERMEDIATE:

• Java • SQL • React

### OTHERS:

• Git • Vim

## LINKS

LinkedIn:// [sidhantbansal](#)  
Github:// [sidhant007](#)  
DevPost:// [sidhant](#)  
Codeforces:// [sidhant](#)  
Kattis:// [sidhant-bansal](#)

## EXPERIENCE

### NATIONAL UNIVERSITY OF SINGAPORE | RESEARCHER

January 2019 – Present

- Developing **distributed algorithm** to establish initial views in the view reconciliation problem for a **permissionless distributed peer to peer** system.
- Working under the guidance of **Prof Haifeng Yu**

### XFERS | SOFTWARE ENGINEERING INTERN

May 2018 - August 2018 | Singapore

- A full stack engineer at **Xfers**, a YCombinator Summer 2015 startup. Worked in **Ruby on Rails** and **React**.
- Designed and implemented internal tools to monitor data inconsistency in the system. All code was reviewed and pushed in production.

### ACM-ICPC | PROBLEM SETTER

December 2017 - December 2018

- Designed and tested **algorithmically challenging problems** for the **ACM-ICPC Indian Regionals** sites.
- These problems were attempted by 300+ teams nationwide during the regional contests.

### TECHNICAL BLOG WRITING | CONTRIBUTOR

March 2016

- Wrote a 2 post series titled **FFT - The tough made simple**, on Codeforces.
- Explained the mathematics behind **Fast Fourier Transform (an optimisation algorithm)**.
- Received over 350+ upvotes from the Codeforces community.

## ACHIEVEMENTS

2018	1 <sup>ST</sup>	ACM-ICPC YANGON ON-SITE REGIONAL CONTEST
2017	5 <sup>TH</sup>	ACM-ICPC JAKARTA ON-SITE REGIONAL CONTEST
2017	BRONZE	INTERNATIONAL OLYMPIAD IN INFORMATICS (IOI)

## PROJECTS

### LIFE | AI SIMULATION

Personal Project | May 2018

- LIFE** is a simulation to train a virtual organism to look for food in an optimal way in a two-dimensional world.
- Implemented a variant of **genetic algorithm** known as **Neuro-Evolution of Augmenting Topologies(NEAT)**.

### GEOTRONER | REAL-TIME MULTIPLAYER GAME

NUS Hack&Roll | January 2018

- Won under the top 8 category for our project, **GeoTroner** a real-time multiplayer online game.
- Based on geographical location of the user inspired from the game Tron and Pokemon Go.
- Built using NodeJs, Google Maps API and Bootstrap.