# Sidhant Bansal

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# **FDUCATION**

# NATIONAL UNIVERSITY OF SINGAPORE

BCOMP IN COMPUTER SCIENCE Minor in Mathematics Expected Graduation: May 2021 August 2017 - Present 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>S1</sup>	ACM-ICPC YANGON ON-SITE REGIONAL CONTEST
2017	5 <sup>™</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 Node Js., Google Maps API and Bootstrap.