# 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: 4.75/5.0

#### DELHI PUBLIC SCHOOL DWARKA

Grad. May 2017 | Delhi, India Grade 12: 95.4% 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

# **TFACHING**

Fall 2018 - Fall 2019

Lab TA - Data Structures and Algorithms

# **SKILLS**

#### **EXPERIENCED:**

•C++ •Ocaml •Ruby

#### **INTERMEDIATE:**

• Java • SQL • Javascript

#### **OTHERS:**

•Git •Vim

# LINKS

LinkedIn:// sidhantbansal Github:// sidhant007 DevPost:// sidhant Codeforces:// sidhant Kattis:// sidhant-bansal

## **EXPERIENCE**

# JANE STREET CAPITAL | SOFTWARE ENGINEERING INTERN

May 2019 - August 2019 | Hong Kong

- Worked on several projects in post trade and trading system teams. Worked in **Ocaml**, a functional programming language.
- Most of the projects were performance sensitive with high emphasis on parallelism and efficiency.

## NUS | Undergraduate Researcher

January 2019 – Present

- Developing a **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.

#### **PROBLEM SETTER** | Competitive Programming

December 2017 - April 2019

- As part of judging panel, designed and tested algorithmically challenging problems for various competitions including ACM-ICPC Indian Regionals, Indian IOI Training Camp and NUS course curriculum.
- Wrote a 2 post series titled FFT The tough made simple, on Codeforces, explaining the mathematics behind Fast Fourier Transform (an optimisation algorithm).

# **ACHIEVEMENTS**

2019	62 <sup>ND</sup>	ACM-ICPC World Finalist
2019	1 <sup>ST</sup>	ACM-ICPC YANGON ON-SITE REGIONAL CONTEST
2018	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

- A real-time multi-player online game. Won under the top 8 category for our project.
- Based on geographical location of the user inspired from the game Tron and Pokemon Go. Built using NodeJs and Google Maps.