

Sidhant Bansal

<http://sidhantbansal.com> | sidhbansal@gmail.com

EDUCATION

STANFORD UNIVERSITY
MS IN COMPUTER SCIENCE
Expected Grad. 2025

NATIONAL UNIVERSITY OF SINGAPORE
BCOMP IN COMPUTER SCIENCE
Grad. May 2021 | GPA: 4.8/5.0
Turing Programme
Minor in Mathematics

COURSEWORK

Design and Analysis of Algorithms
Randomized Algorithms*
Advanced Algorithms
Parallel and Distributed Algorithms
Information Theory
Quantum Computing*
Machine Learning
Computer Networks
Operating System
Advanced Linear Algebra
Statistics
Game Theory
* Ongoing Courses

TA

Parallel & Distributed Algorithms
Prof. Haifeng Yu
Design & Analysis of Algorithms
Prof. Diptarka Chakraborty
Prof. Divesh Aggarwal
Data Structures & Algorithms
Dr. Steven Halim
Prof. Gary Tan

SKILLS

Experienced:

• Modern C++ • Python • Ocaml

Familiar:

• Java • SQL • Javascript
• Q • Kafka

Others:

• Git • Vim • Bash

LINKS

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

EXPERIENCES

CITADEL SECURITIES | SOFTWARE ENGINEER
August 2021 - June 2023 | London, New York City

- Designed a new real-time reconciliation service in **Modern C++** to process 100M+ orders daily. It was highly parallelized with lock-less data-structures to obtain exceptional throughput.
- As part of options team, implemented the end-to-end pipeline for (i) absorbing speculated corporate actions from external third party sources, (ii) normalizing them and (iii) feeding them into trading strategies.

NUS | FINAL YEAR THESIS

April 2020 - Jan 2022 | IEEE ISIT 2022

- Established a lower bound (tight up to logarithmic factor) for **1-bit compressed sensing** in a specific setting
- Worked with **Prof Arnab Bhattacharya** and **Prof Jonathan Scarlett**.
- Explanatory slides at sidhantbansal.com/nusfyp.pdf

DRW | SOFTWARE ENGINEERING INTERN

May 2020 - August 2020 | Singapore

- Developed a high-performance internal tool in **Modern C++**, which compresses market data received from the exchange.
- Contributed on features for the open-source libraries **Conda** and **Numpy** to assist QRs in their day-day work.

JANE STREET CAPITAL | SOFTWARE ENGINEERING INTERN

May 2019 - August 2019 | Hong Kong

- Contributed to several projects in post trade and trading system teams. Worked in **Ocaml**, a functional programming language.
- The projects had high emphasis on parallelism and efficiency.

CONTRIBUTOR | COMPETITIVE PROGRAMMING

December 2017 - June 2021

- As part of judging panel, designed & tested **algorithmic problems** for ACM-ICPC Regionals, IOI Training Camp of India & Singapore, and NUS course curriculum.
- Conducted a **14-lecture video series** on DSA along with Codechef (a non-profit platform) which was engaged with by 20K+ students
- Wrote a 2 post series titled **FFT - The tough made simple**, on Codeforces, explaining the mathematics behind **Fast Fourier Transform**.

ACHIEVEMENTS

2020	22	ACM-ICPC WORLD FINALIST (INVITATIONAL)
2019	TOP 5%	DEAN'S LIST FOR FALL'19
2019	1 ST	ACM-ICPC KAULA LUMPUR REGIONAL CONTEST
2019	62 ND	ACM-ICPC WORLD FINALIST
2018	1 ST	ACM-ICPC YANGON REGIONAL CONTEST
2017	BRONZE	INTERNATIONAL OLYMPIAD IN INFORMATICS (IOI)

PROJECTS

WE NOT I(WNI) | A DISTRIBUTED COMPUTING SOLUTION
NUS Hack&Roll | January 2020

- **WNI** is a distributed program which enables running computationally intensive distributed code over the internet.
- Built in Python using pickle, sockets.io and setupools.