Chaitanya Baranwal

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EDUCATION

NATIONAL UNIVERSITY OF SINGAPORE
BComp in Computer Science
Grad. May 2022 | Cum. GPA: 4.6/5.0
University Scholars Programme
Turing Programme

GLOBAL INDIAN INTERNATIONAL SCHOOL
Grad. May 2018 | Singapore
CBSE (Grade 12): 97.8%
School Valedictorian

LINKS

- in chaitanya-baranwal
- chaitanyabaranwal

COURSEWORK

Data Structures and Algorithms
Programming Languages
Operating Systems
Machine Learning
Computer Organisation
Theory of Computation
Parallel Computing
Distributed Algorithms
Mathematical Statistics

SKILLS

Experienced
- Python • Swift • iOS • C/C++
- Java • Ruby • Rails • React
- SQL

Familiar
- Haskell • Django • Golang

AWARDS

2019	USP Honour Roll
2018	Science and Technology Scholarship, NUS
2016	Global Citizen Scholarship, GIIS Singapore

ACTIVITIES

NUS Hackers Coreteam
Singapore's most active student-run tech community. Organised weekly technical talks, workshops and an annual hackathon.

Better.sg
Working on a digital project to support migrant workers in Singapore, as part of a tech-for-good community.

EXPERIENCE

STRIPE | Software Engineer
August 2022 - Present | Singapore
- **Working in the Refunds team** to help build a powerful and flexible platform for issuing refunds to users.
- Ongoing projects focus on **programmable legal controls over money movement** as well as **fraud prevention.**

STRIPE | Software Engineering Intern
May 2021 - July 2021 | Singapore
- **Built an integration with a wallet payment method** to handle payments from a card network.
- **Updated Stripe's reconcilers** to reduce the manual toil spent by engineers on the reconciliation process.

GARENA | Software Engineering Intern
May 2020 - August 2020 | Singapore
- Worked with the iOS team of **BOOYAH!,** a live streaming app.
- **Profiled and optimized performance** of the streaming UI under heavy chat usage. Reduced CPU usage by 40%.
- **Developed a client-side reverse proxy** to monitor video streaming metrics.
- Implemented full-stack features and fixed bugs.

NUS CVWO | Software Engineering Intern
May 2019 - August 2019 | National University of Singapore
- **Developed a volunteer management system** for Lions Befrienders.
- **Enhanced the report generation functionality** by including region filtering and additional statistics.
- **Wrote scripts** to fix validation errors and missing data. Also upgraded the system to Rails 5.2.

RESEARCH

PARALLEL MACHINE LEARNING
July 2021 - May 2022 | National University of Singapore
- Conducted a **research project** under **Professor You Yang** on handling long inputs through parallelisation in Transformer neural networks.
- **Research paper** accepted in ACL 2023.

DYNAMIC DISTRIBUTED NETWORKS
August 2020 - January 2022 | National University of Singapore
- Conducted a **theoretical research project** under **Professor Seth Gilbert,** proposing a distributed protocol to handle churn in self-stabilizing networks.
- Research report **here** and slides **here.**

TEACHING

DATA STRUCTURES AND ALGORITHMS
Spring 2020, Spring 2021
- Taught basic data structures and algorithms, as well as theoretical analysis of algorithms.
- Obtained a teaching score of 4.6 (department average is 4.2).

DISCRETE STRUCTURES
Fall 2019
- Taught topics like set and number theory, probability, combinatorics, relations and functions and graph theory.
- Obtained a teaching score of 4.5 (department average is 4.2).