

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

 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

TEACHING

Data Structures & Algorithms
Spring 2020, Spring 2021
Teaching score: 4.6 (dept. avg 4.2)

Discrete Structures

Fall 2019
Teaching score: 4.5 (dept. avg 4.2)

EXPERIENCE

STRIPE | SOFTWARE ENGINEER

August 2022 - Present | Singapore, New York

- Refactored Stripe's dispute system to handle external rate limits, reducing peak API calls by 75%. Also redesigned refund systems to **reduce fraud losses by \$3M USD / year**.
- Launched key dispute features improving merchant win rates by 60%, and a refund optimization feature to reduce failure rates by 50%.
- Core contributor to Payments Orchestration and Instant Checkout in ChatGPT, designing post-transaction flows.
- Part of a small group of API reviewers at Stripe, and worked on over 50 API changes spanning payments.

SPEEDBACK | TECHNICAL LEAD

June 2024 - December 2024 | Singapore

- Drove initial design and implementation of a healthtech product for remote monitoring and health education at scale.
- Designed product integration with Supabase, multi-organization support, Messenger/Whatsapp integration, and automated patient tagging.

GARENA | SOFTWARE ENGINEERING INTERN

May 2020 - August 2020 | Singapore

- Profiled and optimized performance of the a live streaming app under heavy chat usage. Reduced CPU usage by 40%.
- Developed a client-side reverse proxy to monitor video streaming metrics.

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.

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.

VOLUNTEERING

EQUITECH COLLECTIVE | TECHNICAL LEAD

February 2024 - December 2024 | Singapore

- Led development of an EHR system serving 200k+ patients in a refugee clinic on the Thai-Myanmar border.
- Mentored 3 engineers on export functionality, UI/UX, database modeling and clinical module support.

NUS HACKERS | CORETEAM MEMBER

2019 - 2022 | National University of Singapore

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