

# Sachit Lumba

📍 Pittsburgh, PA • ✉ sachitlumba@gmail.com • slumba@andrew.cmu.edu • ☎ 610-639-6024 • 🐦 sparrownor1 • 🌐 sachitlumba

## Education

### School of Computer Science, Carnegie Mellon University

*Bachelor of Science*

Computer Science, May 2024

**GPA:** 4.0 (Dean's List)

*Relevant Coursework:*

- Randomness in Computation - Graduate Level
- Algorithm Design and Analysis
- Operating System Design and Implementation
- Distributed Systems

### Dubai College

*Sixth Form*

A-Levels, May 2020

*Relevant Coursework:*

- Computer Science - A\*
- Mathematics - A\*
- Physics - A\*
- Chemistry - A\*

## Skills

*Languages:*

Python • C • Rust • Go • JavaScript  
• Standard ML • Julia • LaTeX • Swift

*Frameworks:*

Docker • Bazel • React • Express • NodeJS

## Activities

### Music

*Jazz Pianist, Tabla Player, Producer*

### Robotics Club

*Founder, Dubai College*

### Diving

*PADI Advanced Open Water*

### Conservation

*Operation Wallacea, South Africa, 2019*

## Work Experience

### Stripe • Software Engineering Intern

May - August 2023

- Implemented **PyFlink UDF support** in Stripe's Apache Flink architecture, optimizing Bazel rules for efficient CI testing and streamlining the deployment process, for seamless execution of applications
- Conducted comprehensive benchmarking to research and identify **optimization opportunities** for PyFlink integration, enhancing performance and efficiency
- Onboarded teams onto PyFlink apps, replacing ad hoc solutions with a **robust, standardized environment**, while also contributing to broader **developer productivity tooling**

### ForAllSecure • Software Engineering Intern

June - August 2022

- Acquired proficiency in Docker and Rust to contribute to the development of Dismay (Distributed Mayhem), a groundbreaking client-side fuzzing framework
- Researched and prototyped the Dismay job scheduler, applying queueing theory and probability techniques to optimize for efficiency and speed

### CMU • Teaching Assistant - TCS, Systems, Probability

September 2021 - today

- Served as **head TA** of the coolest probability course at CMU, **probability and computing**, managing a talented course staff, and making sure things ran smoothly
- Taught some **great ideas in theoretical computer science**, covering Turing computability, automata, and complexity theory, as well as **an introduction to computer systems**, which included concurrent programming, and introductory networking
- Led recitations, held office hours, and graded homework for all of the above

### Finent • Full-stack Developer

June - August 2021

- Designed and built a customer service portal for the Fincent web app, using an ExpressJS backend and a React Material UI Frontend
- Incorporated AWS CloudWatch Logs from the Fincent App for use by customer service agents and ticketing management using the API for Linear

## Selected Projects

### NSC Sports • Summer 2021

- Developed a web app for the Sports Ministry of Sri Lanka to manage the athletes of various sports associations
- Improved the security of the ExpressJS backend and wrote a Material UI frontend in React

### MUN-Net • A-Level Computer Science 2019-20

- Designed a system for Model UN organisers to set up and track conferences
- User oriented design-process consisting of multiple interviews and prototyping
- Project was implemented in Python using Django to manage the backend
- Also used NGINX, gunicorn for deployment, Material Design for frontend

## Awards and Honors

- *AI Olympiad Round 2 - Jan 2020*, Placed 11th in the UAE
- *AI Olympiad Round 1 - Nov 2019*, Placed 3rd in the UAE
- *Bebras Computing Challenge - 2019*, 144/180, Second highest score in my grade
- *Silver - British Physics Olympiad (BPhO) Round 1 - 2019*, Highest score in grade
- *Gold - BPhO AS Challenge - 2019*, Highest score in grade