

Sachin Rammoorthy

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EDUCATION

UNIVERSITY OF MICHIGAN

2020-24 | Ann Arbor, MI
BSE in Computer Science and Mathematics
GPA: 3.98 | Engr. Scholarship of Honor,
James B. Angell Scholar, Dean's List

STONEHILL INTL SCHOOL

Valedictorian, IB Diploma Programme
ACT: 36/36 | IB: 43/45

SKILLS

TECHNOLOGY Distr. Systems •
Web • Security • Machine Learning •
Systems • Architecture • Containers
(Docker/K8s) • Cloud • Git

LANGUAGES Python • C++ • Rust •
Android/Java • JavaScript

COURSEWORK OS/Systems •
ML • Web • Security • Algorithms •
Comp. Arch. • Linear Algebra •
Financial Math • Vector Calculus •
Advanced Probability

AWARDS/HONORS

GRAND PRIZE, GOOGLE CODE-IN

Sep 2018-July 2019
Worked with Liquid Galaxy, and invited to
the awards ceremony in Google HQ. Was a
mentor to 100+ students in 2019-20.

ENGR SCHOLARSHIP OF HONOR

2020-2024 | University of Michigan
Recipient of a \$120,000 merit scholarship
over 4 years from the College of Engineering.

INTEL ISEF Dec 2018 | New Delhi

National Finalist - two of my projects were
selected among the top 50/10000.

INTL LINGUISTICS OLYMPIAD

May 2018
Shortlisted to the Indian team and attended
the training camp in IIIT Hyd.

MISC

- Michigan Hackers, senior member
- Reached ~600k people on **Stack Overflow**
- US Citizen, Chess player, Pianist, Flautist

EXPERIENCE

RAMP | SOFTWARE ENGINEER INTERN

May 2023 - Aug 2023 | New York, NY
Developed a system for dispute and refund automation, saving over **\$100k per month** in fraud, CX, and filing costs. Additionally, worked on speeding up local development and pytest. Learnt to work with Celery, Postgres, Snowflake, LibCST, Datadog, and more.

DEEPGRAM | SOFTWARE ENGINEER INTERN

May 2022 - Aug 2022 | San Francisco, CA
Worked on Machine Learning infrastructure for Automated Speech Recognition (ASR) and inference engine optimizations. Additionally, developed and deployed containerized bots for ASR via Zoom and Google Meet. Learnt to work with Rust, Redis, Docker, and Kubernetes.

GE HEALTHCARE | SOFTWARE ENGINEER INTERN

May 2021 - Aug 2021 | San Francisco Bay Area, CA
Created a containerized library and API to compile and standardise results from hundreds of Artificial Intelligence algorithms run on CT and MRI scans. Learnt to work with Docker, Kubernetes and DICOM. Presented at **CMIMI '21 (SIIM)**.

UNIVERSITY OF MICHIGAN | RESEARCH & TEACHING

Aug 2020 - Present | Ann Arbor, MI

- Security Researcher - Network MiTM attacks + ML in election security
- Teaching Assistant - Advanced Linear Algebra (Math 217)
- Complex Systems Researcher - Markovian models in curricular environments

CISCO | SOFTWARE ENGINEER INTERN

May 2020 - Aug 2020 | Bangalore, India
Working with the 42Hertz team, built an analytics dashboard for music streaming services. Learnt to work with React and D3.js.

PROJECTS

REDDIT SEARCH ENGINE Sep-Dec 2022 |

Created a custom search engine for famously hard-to-search Reddit. Scraped thousands of posts for source data, created a PageRank-based reputation ranking system, used Hadoop Streaming to create a segmented inverted index, and created a distributed system for search. In my (unbiased) opinion, results were at least as accurate as Reddit search.

WORDLE BOT Feb-March 2022 |

Created a bot for the popular word game Wordle using Machine Learning. Specifically, we use decision trees and entropy to narrow the "space" of possible guesses every iteration. The bot beats the game 100% of the time!

MARKOV CHAIN BASED CRICKET RATINGS Jun-Sep 2019 |

Developed a rating system for cricket players that is currently in use by a team in the biggest cricket league in the world (IPL). The program calculates ratings by analysing historical data through Markov chains and binomial distributions. Published in several national newspapers and magazines.