

SARTHAK SHAH

Machine Learning & Security Engineer

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EXPERIENCE

Mercari, Inc. May 2024 - July 2024
Security Engineering Intern Tokyo, Japan

KEY SKILLS: Threat Detection, Incident Response, Terraform

- Worked as a part of the Threat Detection & Response team.
- Wrote and deployed programs for sensing network scans and analyzing firewall logs.
- Wrote log routers and BigQuery views for the same and deployed them to the SOAR through Google Cloud PubSub using Terraform.

Google Summer of Code May 2023 - September 2023
Intern with the GNU Project Remote

KEY SKILLS: Operating System Development, Linux, Functional Programming

- One of the 2.2% of applications selected for the Google Summer of Code program.
- Worked on adding an interface for compile-time options to the Guix package manager.
- [Project Completion Report](#) and [Source Code](#).

GeneNetwork November 2023 - January 2025
Software Developer Remote

KEY SKILLS: WebAssembly, NumPy, Data Visualization

- Worked on building a Genome Browser for [GeneNetwork](#), a project under University of Tennessee's Health Sciences department.

High Performance Computing Lab, BITS Pilani January 2023 - May 2024
TA, System Administration Onsite

KEY SKILLS: System Administration, Networking, Incident Management, Ansible

- Worked as one of the Assistant System Administrators for the university's High Performance Computing cluster
- Worked on access management, incident management, change management and capacity management of the cluster.

EDUCATION & CERTIFICATIONS

University of Oxford January 2025 - July 2025
Recognized Student Oxford, United Kingdom

Studying and conducting research as a Recognized Student under the Department of Computer Science, University of Oxford in the fields of Cybersecurity and Deep Learning.

CompTIA Security+ October 2024
[Link to verified credentials](#)

Birla Institute of Technology and Science, Pilani 2021 - 2025
MSc. Mathematics (Integrated, Hons.)
Minor in Computing and Intelligence

SKILLS

Networking: Linux, TCP/IP, System Administration, Google Cloud Platform, Terraform, Azure, Automation and Scripting

Cybersecurity: Threat Detection, Incident Response, Cryptography, SOAR, Change Management, Access Management, OSINT, DevSecOps, Fuzzing

Machine Learning: PyTorch, Scikit-Learn, NumPy, Pandas, LangChain, Apache Spark, Finetuning, GRPO, MCP

Programming: Python, Go, Ansible, Scheme, Clojure, Bash, C/C++, CUDA, Fortran, WebAssembly, TypeScript, PHP

Communication: English, Japanese, Team Leadership

HIGHLIGHTED PROJECTS

Plyppy A Boot Animation Creator for Linux

SeerGPT An LLM-powered Tarot Reader

TileEx A Tiling Pattern Extractor written in Go

Parameterized Packages for GNU Guix GSoC '23 Project adding Compile-Time Options to GNU Guix, a Transactional Package Manager

GWAS Plotter GWAS Plotter that can do Manhattan Plots and QTL Plots

Yui A feature-rich Discord bot with LLM integration, written in Clojure
(And many more on my [Github](#))

EXTRACURRICULARS

Society for Open Software
President

June 2022 - Present

- Organized and spoke at six workshops that covered git, dual-booting, networking and shell scripting.
- Organized and hosted two CTF competitions.

Journal Club

2022

Editor-in-chief

Served as the Editor-in-chief for the annual Freshman magazine, *Whisper in the Woods*.

ACHIEVEMENTS

National Supercomputing Mission GPU Hackathon
Participant

2022

IIT Bombay

A Supercomputing GPU Hackathon organized by Nvidia.

Winner, IIT Goa's Cepheus CTF

2023

Runner up, IIT Hyderabad's Cipher-Cracking Contest "Enigma"

2023

Rank 3, NCFE-NFLAT

2017-2018

Gold Medalist, Queen's Commonwealth Essay Writing Competition

2015

LINKS

Github: <https://github.com/matchcase>

Linkedin: <https://linkedin.com/in/sarthak-shah-sos>

Blog: <https://blog.coldboot.org>