

# Ruturaj Mohite

📍 Bangalore, India

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## Education

**International Institute of Information Technology**

*Bachelor and Master of Technology in Computer Science*

GPA: 3.58/4. Master's thesis [🔗](#)

**Bangalore, India**

*2019 - 2024*

## Experience

**Google**

*Software Engineer III*

Part of the Google Store Launch Management team.

Team **engineered from scratch** the publishing infra that validates and publishes content for Google's commercial websites.

- o Designed and implemented Content Validation Engine and Launch Controller from scratch which validates content and its dependencies by computing a dependency graph and orchestrates launches.
- o Designed performance critical Spanner DB schema required by the publishing infrastructure.
- o The only junior engineer on the database council of my org who are authorized to approve database related changes.

**Fast tracked promotion** to SWE III in 1 year and 3 months.

**Bangalore, India**

*July 2024 - Present*

**Mercari, Inc.**

*Software Engineering Intern*

Part of the Mercari Japan Region Trust and Safety team.

- o Designed and implemented age restriction for item listings on the Mercari Marketplace.
- o Improved development infrastructure for TnS services - Set up service routing, dev monitors, etc.

*Technologies:* Go, gRPC, Kubernetes, Async Service Communication

**Tokyo, Japan**

*Feb 2024 - Mar 2024*

**Google**

*Software Engineering Intern*

Part of the Google Store Launch Management and Publishing team.

- o Designed and implemented a service to index and verify published releases during New Product Introductions (Made By Google).
- o Designed a service to detect replication inconsistencies across distributed Spanner instances.

*Technologies:* Java, Distributed Cache Systems, gRPC

**Bangalore, India**

*May 2023 - Aug 2023*

## Projects

**CircuitVerse Simulator** [🔗](#)

*2021-Present*

CircuitVerse is an open source digital logic simulator. Try now at [circuitverse.org/simulator](https://circuitverse.org/simulator) [🔗](#)

- o Implemented testbench engine and circuit contention detection.
- o Many fixes in resolution engine, subcircuits, circuit loading, etc. Also some backend features and fixes.
- o Led Google Summer of Code projects related to engine performance, version control, and testing.

CircuitVerse is used by **over 100k users and many universities**. It's also a part of Google Summer of Code.

**vSOS** [🔗](#)

*2025*

A 32bit Kernel + Bootloader for x86.

- o Implemented Bootloader, ISRs, Memory Management, Paging, Device Drivers etc.

**Contain: A container process level packet filter** [🔗](#)

*2024*

eBPF based kernel level filter for Linux that filters packets based on container and process level policies

- o Implemented a BPF\_PROG\_TYPE\_CGROUP\_SKB program and kprobes to filter socket connections for each process
- o Implemented a daemon using kprobes to detect containers at runtime. Read the thesis [🔗](#). Read the paper [🔗](#)

## Publications

- o R. Mohite, B. Thangaraju, "Enhancing Container Security with Per-Process Per-Container Egress Packet Filtering Using eBPF" [🔗](#)

## Skills and Interests

OS Kernels, Algorithms, Containerization and Virtualization, Distributed Systems, Databases

## Leadership and Achievements

- o Google Summer of Code Organization Admin, Maintainer at CircuitVerse [🔗](#) (2022, 2023, 2024)
- o Full travel grant & scholarship to attend Open Source Summit EU 2022
- o Dean's Merit List Scholarship (2020)