

HARSH KAPADIA

harshkapadia.me | github.com/HarshKapadia2 | linkedin.com/in/harshgkapadia | contact@harshkapadia.me

EDUCATION

Boston University – The Graduate School of Arts & Sciences (GRS) **Dec 2023**
Boston, USA
Master of Science in Computer Science (CGPA: 3.0 / 4.0)

- Courses: Computer Networks, Transport Protocol 'Homa', Network Security, Operating Systems, Databases

University of Mumbai – Thadomal Shahani Engineering College **May 2022**
Mumbai, India
Bachelor of Engineering in Information Technology (CGPA: 9.02 / 10.0)

- Courses: Web Dev., Computer Networks, Network Security, Database Management, Project Management

EXPERIENCE

Advanced Micro Devices (AMD), Inc. **Jan 2024 – present**
Austin, USA
Field Applications Engineer

INTERNSHIPS

Advanced Micro Devices (AMD), Inc. **May 2023 – Aug 2023**
Austin, USA
Field Applications Engineering Intern

- Built a web app to provision and manage Virtual Machines configured with debug software and scripts, user public keys, persistent storage and VNC to reduce server issue debug time by 10%, using KVM, Bash scripts, Express.js and React.js.
- Benchmarked network bandwidth (iperf3), memory bandwidth (STREAM) and CPU performance (DGEMM) of servers.

NanoNet Technologies Inc. **Aug 2021 – Nov 2021**
Remote
Software Intern

- Published two [OCR](#) and [Image Classification](#) SDKs to improve development time by 50%.
- Enhanced documentation by enforcing the OpenAPI 3.1.0 standard and adding more code samples.

SKILLS

Web: React.js, Express.js, Flask, HTML, CSS, JS **Languages:** JavaScript, Java, Bash, Python, C
Databases: MySQL, MongoDB **Platforms:** GitHub, Firebase, Heroku
Tools: Git, iperf3, Wireshark, Tcpcat **CI/CD:** GitHub Actions

PROJECTS

Git Graph | [React.js](#) | [Web app](#), [GitHub](#) **Jan 2022 – Jul 2022**

- A web app to visualize the graphs that Git creates to connect Commit, Tree and Blob objects internally.
- Takes an existing repository to generate graph visualizations for local branches and allows highlighting specific commits.
- Taught 100+ people the internals of Git using Git Graph in [my talks](#).

Performance Comparison of TCP Versions | [iperf3](#), [GENI Testbed](#) | [Report](#), [GitHub](#) **Nov 2022 – Dec 2022**

- Compared Congestion Window size responses of TCP Reno, TCP CUBIC, TCP Vegas and TCP BBR to network congestion.
- Compared the fairness of two TCP versions running simultaneously on the same connection.

Git Internals | [Asciidoctor Jet](#) | [PWA](#), [GitHub](#) **May 2022 – Jul 2022**

- A PWA documenting and explaining the internals of Git.
- Explains the contents of the `.git` directory and the connections between Commit, Tree and Blob objects.

HPS Gems | [PHP](#), [MySQL](#), [HTML](#), [CSS](#), [JS](#), [Heroku](#) | [Web app](#), [GitHub](#) **Oct 2020 – Dec 2020**

- A JAMstack e-Commerce CRUD web app for selling raw gemstones.
- Uses the Fetch API to interface with the backend and the Web Components API to render products.

OTC CatchUp | [Express.js](#), [Asciidoctor Jet](#), [Bash](#), [HTML](#), [CSS](#), [JS](#), [Deta](#) | [Web app](#), [GitHub](#) **Sep 2021 – present**

- A web app for managing weekly OTC CatchUp Tech discussion sessions.
- Hosts session summaries and manages session joining links.

EXTRACURRICULAR ACTIVITY

Our Tech Community (OTC) | ourtech.community **Jan 2020 – present**
Organiser

- Started a Tech-loving open-to-all community with 500+ current members.
- Hosted 800+ hours of weekly [OTC CatchUp](#) sessions involving technical discussions, project showcases and talks.

Talks | talks.harshkapadia.me **Jun 2020 – present**

- Impacted 700+ people in 20+ talks and workshops at various technical meetups.
- Gave talks on 'Routing Using IP and MAC Addresses', [Git internals](#), etc.

Articles | networking.harshkapadia.me **Dec 2020 – present**

- Wrote detailed articles on [TLS](#), [SSH](#), [IP and MAC Routing](#), [Homa](#), etc. by analysing packet captures.