

# Ruturaj Mohite

Undergrad at IIIT Bangalore

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in in/ruturaj-mohite

## EDUCATION

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**International Institute of Information Technology**  
*Integrated Master of Technology in Computer Science*

**Bangalore, India**  
*2019 - Present*

## EXPERIENCE

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### CircuitVerse

*Developer and Maintainer*

*Sept 2020 - Present*

🔗 circuitverse.org

- Maintain security and simulator related code
  - Found and fixed multiple security vulnerabilities ranging from stored XSS to a full account takeover CSRF
  - Implemented and deployed rate site-wide rate limiting and mitigated Denial of Service attacks
- CircuitVerse currently has **over 80,000 users**

### CircuitVerse

*Google Summer of Code Student*

*Jun 2021 - Aug 2021*

🔗 circuitverse.org

- Implemented the Testbench to automatically test circuits created on the simulator
- Redesigned the interface for creation of tests for automated testing
- Fixed multiple critical bugs on the simulator

### PublicLab

*Open Source Developer*

*Jan 2020 - Aug 2020*

🔗 spectralworkbench.org

- Migrated project to newer Rails version in planned incremental steps
- Fixed CI/CD and containerization related bugs
- Improved test coverage from 65% to 80+%

SpectralWorkbench currently has **over 20,000 users**

## PROJECTS

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### very Simple Operating System 🔗

*2020 - 2021*

A simple 32-bit operating system for x86 systems.

- Implemented a basic bootloader to switch into protected mode and load kernel into memory
- Implemented VGA and keyboard drivers
- Implemented a shell to interact with the kernel
- Implemented a custom C standard library used across the kernel

### Secure Elections 🔗

*2020*

Web portal to host secure elections. It maintains the anonymity of the voter from all the other voters and candidates. The data integrity is preserved through a cryptographic hash check which prevents the votes in the database from being altered while preserving anonymity of the vote.

Used by over **500 users**

### Zense CTF 🔗

*2020*

A Jeopardy type Capture the Flag (CTF) containing challenges related to various domains of Information Security.

Roles:

- Creation of Web Security challenges
- Production server management

## SKILLS

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- **Languages:** Python, Javascript, C, C++, Java, Ruby, Bash, MySQL
- **Tools and Technologies:** Linux, Docker, Git, Rails, Django, Nodejs, JQuery
- **Areas of Interest:** Scalable Systems, Web and Network Security, Cloud Computing, Operating Systems

## PORs AND ACHIEVEMENTS

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- Core Member of Zense and Zense Infosec 🔗
- Top 20 In India on CTFTime 🔗
- Dean's Merit List Scholarship recipient (2020)