

## WORK EXPERIENCE

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|--|---------------------------------------|-----------------------------|
| <b>SSD Security Firmware Engineer</b>  | <b>Micron Technologies, Singapore</b> | <b>Jan 2020 - Jan 2022</b>  |
| <ul style="list-style-type: none"><li>Ensured secure lifecycle management by developing and integrating security solutions for embedded firmware,</li><li>Made debugging easier by initiating and developing simple tools for easy debugging within a team and resolving more security-related firmware bugs.</li><li>Involved in Internal security features development and validation with proper firmware design and test plan.</li><li>Collaborated with intercontinental teams to successfully complete the projects.</li></ul> |                                       |                             |
| <b>InfoSec Research Intern</b>   | <b>PayPal, Singapore</b>              | <b>May 2019 - Sept 2019</b> |
| <ul style="list-style-type: none"><li>Provided secure enclave execution by implementing hardware-based security solutions using Intel SGX.</li><li>Designed and built a RESTful API to regulate secure communication and integration within the security framework.</li><li>Profiled the performance of the Attribute-Based Encryption (ABE) various implementations, measuring main aspects like execution time, computational overhead, and efficiency.</li></ul>  |                                       |                             |

## SKILL SETS

- Programming Languages:** C, C++, Embedded C, Java, Python, Go
- Database:** Mysql, Couchbase, Cassandra, MongoDB
- Tools and Frameworks :** Go-crypto, Charm Crypto Framework (ABE), Go-Swagger, JTAG, Ulink, Xgig Analyzer

## EDUCATION

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|--|-----------------------|---------------------------------------|
| <b>Anna University</b>   | <b>Chennai, India</b> | <b>Jan 2022 - Mar 2025 (Expected)</b> |
| <ul style="list-style-type: none"><li><b>Doctor of Philosophy in Computer Science and Engineering CGPA: 9 / 10</b></li><li><b>Research Title:</b> Secure and Privacy-preserving Medical Image Storage and Retrieval in the Cloud</li></ul> |                       |                                       |
| <b>National University of Singapore</b>  | <b>Singapore</b>      | <b>Aug 2018 - Jan 2020</b>            |
| <ul style="list-style-type: none"><li><b>Master of Computing in School of Computing - Computer Science Specialisation, CAP: 3.7 / 5.0</b></li></ul>  |                       |                                       |
| <b>College of Engineering Guindy</b>   | <b>Chennai, India</b> | <b>Aug 2014 - May 2018</b>            |
| <ul style="list-style-type: none"><li><b>Bachelor of Engineering in Computer Science and Engineering, CGPA: 9.37 / 10.0</b></li></ul>  |                       |                                       |

## RESEARCH PUBLICATIONS

- SMedIR: secure medical image retrieval framework with ConvNeXt-based indexing and searchable encryption in the cloud** in Journal of Cloud Computing (2024), [pp. 1-30](#).
- EdgeShield: Attack resistant secure and privacy-aware remote sensing image retrieval system for military and geological applications using edge computing** in Earth Science Informatics (2024), [pp. 2275-2302](#).
- Systematic Survey: Secure and Privacy-Preserving Big Data Analytics in Cloud** in Journal of Computer Information Systems (2023), [pp. 1-21](#).
- Preventing Forgeries by Securing Healthcare data using Blockchain Technology** in 3rd ICT4SD held during August 30-31, 2018 at Goa, India, [pp. 151-159](#).

## CERTIFICATIONS AND AWARDS

- Received **Best Paper Award** in the ICEEICT-2024 held at K Ramakrishnan College of Engineering, Trichy, India. **Jul 2024**
- Received **Best Paper Award** in the ICCIDS-2023 held at SSN Engineering College, Chennai, India. **Feb 2023**
- Attended two weeks **AI and Big Data Analytics in Healthcare** Workshop at TMU in Taiwan. **Dec 2017**

## TALKS GIVEN

- EdgeShield**, Invited talk at Hybrid International Conference on Space Science and Technology, UAE. **Nov 2024**
- Introduction to SGX Intel**, Invited talk at SRM Institute of Science and Technology in Chennai. **Jul 2020**

## ACHIEVEMENTS

- Managed 3 undergraduate projects and 2 postgraduate projects directly and delivered them successfully by deadlines.
- Presented research papers at academic conferences in the UK and the UAE, actively engaging and sharing knowledge on an international stage.