

GITA ALEKHYA PAUL

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EDUCATION

SRM Institute of Science and Technology

B.Tech in Computer Science and Engineering with specialisation in Cyber Security

CGPA: 9.73 ♦ Silver Medalist ♦ First Class with Distinction

June, 2019 - May, 2023

Chennai, India

WORK EXPERIENCE

Collab.Land

Lead Software Engineer, Research and Development

Maintained software for 4.5M+ active users across 59K+ Discord and Telegram communities. Launched a SocialFi product with 10K+ users, enabling smart account wallets via account and key abstraction. Developed PoC integrating LLM agents for on-chain actions and built data pipelines for analytics. Worked on novel identity verification using steganography and machine learning.

October, 2022 - Present

Remote

MITACS Globalink Research Internship @ ÉTS Montreal

Research Intern

Secured a fully-funded MITACS Globalink 2022 Research Internship under Prof. Julien Gascon-Samson at ÉTS. Proposed a refreshed architecture reducing network calls by 25%, achieving a scalable 'opinionated mesh' solution that improved network reach by 50%, tested on 400+ subscribers during a 12-week project on MQTT-based middleware.

July, 2022 - October, 2022

Montreal, Canada

Quinence

Backend and Smart Contract Developer Intern

Optimized indexers and NFT marketplace services, reducing query latency by 30% on Zilliqa blockchain. Set up scalable infrastructure for Aqilliz Wishworld's first NFT sale, handling 1,000+ NFTs, and co-developed smart contracts for the \$380K+ valued Soulless Citadel NFT collection.

January, 2022 - March, 2022

Remote

Hoppscotch India Private Limited

GitHub Extern Summer 2021

Worked on the first version of the CLI for the Hoppscotch API runner ecosystem, with over 100,000+ users and 63K+ GitHub stars. Hoppscotch users can use this CLI for automated testing of the tests in the collection JSON in a CI environment.

June, 2021 - September, 2021

Remote

NetSPI

Cyber Security Trainee

Received training in web application security and the different methods of attack and defense. Shadowed the instructors on live projects to learn how the work is done in the industry. Helped with documenting client requirements. Presented a webinar on JSON deserialization attack in Node.js.

June, 2021 - July, 2021

Remote

Amazon AWS Amplify CLI

MLH Fellow Spring 2021

Worked on the DX of the Amplify CLI init workflow. Helped find bugs and fixed them in the open-source repository. Made a developer documentation website for the easier onboarding of future contributors. During the fellowship, I worked on a single-thread Reddit clone to demonstrate the use of Amplify CLI. Won the MLH Fellowship CTF.

January, 2021 - April, 2021

Remote

Mendios Technologies Bangalore Pvt. Ltd. (webMOBI)

Node.js Backend Developer Intern

Created Zapier Integrations for the company to integrate into the company APIs, facilitating real-time data storage and notifying users and admins of events. Worked on webRTC integrations to facilitate the conduction of online webinars.

June, 2020 - October, 2020

Remote

TECHNICAL SKILLS

Languages

C, C++, Python, JavaScript, TypeScript, SQL, Java, Solidity, SCILLA

Web Technologies

React.js, Node.js, Next.js, Express.js, MongoDB, Redis, Postgres, Loopback 4

Hardware

ESP32, Arduino, Raspberry Pi, NodeMCU, Blynk IoT, IFTTT

Blockchain

Zilliqa, Ethereum, Smart Contracts, Multi-party computation, DIDs

ZK-proofs, Chain abstraction, Account abstraction

Data Analytics and ML

BigQuery, Dune Analytics, LLM Fine-Tuning, Custom AI Agents

Cyber Security

Linux, Network Security, Web Pentesting, Image Forensics

Networking & Cloud

AWS, GCP, Docker, Edge Computing, Distributed Networks, MQTT, Wireless Mesh

RESEARCH AND CERTIFICATIONS

Best Paper @ 2023 2nd International Conference on Vision Towards

Emerging Trends in Communication and Networking Technologies (ViTECoN)

5th May, 2023

"Implementing Dead Letter Exchanges in MQTT and Proposing a Broker Failure

Algorithm Utilizing Blockchain DNS"

DOI: [10.1109/ViTECoN58111.2023.10157491](https://doi.org/10.1109/ViTECoN58111.2023.10157491)

Published

2023 Third International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT)
"Improving Fault Tolerance and Tackling Broker Failure in MQTT through Blockchain"
DOI: [10.1109/ICAECT57570.2023.10118032](https://doi.org/10.1109/ICAECT57570.2023.10118032)

5th January, 2023

Published

Gold Medal for Research @ SRM Research Day 2022
"A Novel Pipeline for Compressing Image Buffers in Remote Education Video Conferencing using Harris Corner Detection and Pixel Map Array"
DOI: [10.1109/ICECCT56650.2023.10179787](https://doi.org/10.1109/ICECCT56650.2023.10179787)

1st March, 2022

Published: ICECCT, 2023

Gold Medal for Research @ SRM Research Day 2021
"Energy Efficient Ad-hoc Network using Multicast Tree for Wireless Sensor Applications"
DOI: [10.1109/ICMNBC56175.2022.10032031](https://doi.org/10.1109/ICMNBC56175.2022.10032031)

1st March, 2021

Published: ICMNBC, 2022

ACCOMPLISHMENTS AND AWARDS

2nd Prize - Okto Wallet Red Envelope Smart Contract Track
Unfold 2023 ♦ <https://github.com/gitaalekhyapaul/hera-pheri> October, 2023
Bangalore, India

Quadratic Funding Recipient
ETHForAll 2023 ♦ <https://github.com/gitaalekhyapaul/ethforall-delinzk> February, 2023
Remote

Winner, Track: Best use of Polygon ID
ETHIndia 2022 ♦ <https://github.com/gitaalekhyapaul/ETHIndia2022-SigmaSoiBois> December, 2022
Bangalore, India

Best Blockchain Project Using Hedera
Rookie Hacks II ♦ <https://github.com/gitaalekhyapaul/Rookie-Hacks-II> May, 2022
Remote

Winner
Hack This Fall 1.0 ♦ <https://github.com/gitaalekhyapaul/shikshak> October, 2020
Remote

4th Position Worldwide
HackTheMountains ♦ <https://github.com/gitaalekhyapaul/fren> October, 2020
Remote

Best First Year
Code2Create 2020 by ACM VIT ♦ <https://github.com/gitaalekhyapaul/code2create2020> March, 2020
Vellore, India

2nd Runner Up
Hack36 by MNNIT Allahabad ♦ <https://github.com/gitaalekhyapaul/hack36> February, 2020
Allahabad, India

3rd Prize
Progate Webathon ♦ <https://github.com/gitaalekhyapaul/codely> February, 2020
Chennai, India

SIH Internals Winner from SRMIST
Smart India Hackathon ♦ <https://github.com/gitaalekhyapaul/sih2020> January, 2020
Chennai, India

1st Prize
Techknow 1.0 Hackathon ♦ <https://github.com/gitaalekhyapaul/project-imperium> October, 2019
Chennai, India

POSITIONS OF RESPONSIBILITY

HackTheBox SRMIST February, 2022 - May, 2023
Founder and Co-organizer
Established SRMIST's first security club officially backed by Hack The Box Meetups, organized South Asia's largest meetup with 750+ participants, and conducted cybersecurity sessions. Managed team operations and mentored members during CTF workshops.

GitHub Community SRM May, 2021 - May, 2023
Founder and Admin
Founded SRM's first open-source community officially backed by GitHub Education, conducting internal sessions, developing a final year thesis management portal, and organizing events focusing on open-source and blockchain technologies addressing a crowd of 300+ at 'Unhashed,' introducing students to blockchain and guiding them on getting started with writing smart contracts.

Next Tech Lab September, 2020 - May, 2023
Member
Contributed to Tesla Lab research projects, delivered talks to an audience of 50+ students in 'Tesla Tech Talks' series, and led a development team for the lab's website prototype.

Team Envision, Aaruush Committee, SRMIST February, 2020 - January, 2022
Technical Team Member
Played a key role in Team Envision, managing a team of 4 to develop ticketing and registration systems for Aaruush, SRMIST's techno-college fest, used by over 2500+ students.

SRMKZILLA July, 2019 - June, 2021
Associate Lead - Technical
Led SRMKZILLA's creative team as lead photographer and served as associate lead in the technical team. Collaborated with students and brands, delivering IoT development sessions to 100+ students during 'Tech-troduction' workshops.