# KHUSHI ARUNKUMAR BYAKOD

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Dedicated and enthusiastic student seeking an internship to apply academic knowledge and skills in a real-world setting. Results-driven and detail-oriented individual with strong communication and teamwork skills. Motivated learner eager to contribute to innovative projects and gain industry experience.

## EDUCATION

| | INSTITUTE | SGPA | | CGPA |
|---|---|---|---|---|
| BACHELOR OF ENGINEERING (PERSUING)<br><br>ELECTRONICS AND COMMUNICATION ENGINEERING | JSS ACADEMY OF TECHNICAL EDUCATION | SEM I | 9.20 | 9.31 |
| | | SEM II | 9.40 | |
| | | SEM III | 9.20 | |
| | | SEM IV | 9.45 | |
| | | **YEAR OF PASSING** | | **PERCENTAGE** |
| CLASS XII | SRI KUMARAN CHILDREN'S HOME COMPOSITE PU COLLEGE | 2022 | | 91.3% |
| CLASS X | VSS INTERNATIONAL PUBLIC SCHOOL | 2020 | | 92.8% |

## EXPERIENCE

**RESEARCH INTERN - INDIAN INSTITUTE OF TECHNOLOGY- GUWAHATI,** Summer Research Internship, May 2024

Conducted research and development on lightweight cryptographic algorithms (ASCON) designed for resource-constrained environments. Analysed and evaluated cryptographic protocols, focusing on optimizing performance while maintaining robust security in low-power, low-memory settings. Gained practical experience in VHDL for hardware design and implementation along with simulation and synthesis in Cadence tool. Completed the base implementation of Ascon 128a using VHDL. Developed testbenches for hardware validation and verification to ensure correctness of designs. Simulated and tested hardware design, identifying and resolving issues related to functionality and timing. Further working on the process of optimization and better performance of the algorithm.

## ARTICLE PUBLISHED

**CLOUD COMPUTING AND SECURITY PRACTICES,** Digital Forensics (4N6) Publication volume 9 | issue 1 | February 2024

Authored a research article exploring key cloud computing concepts, security risks, and best practices for securing cloud-based environments. Analysed various cloud service models (IaaS, PaaS, SaaS) and highlighted emerging trends in cloud security technologies and frameworks.

## CERTIFICATION

1. INTRODUCATION TO IOT, Skill up by Simplilearn January 26, 2023

   Completed a comprehensive course on the fundamentals of the Internet of Things (IoT), covering key concepts such as IoT architecture, protocols, and communication technologies. Developed an understanding of IoT security, data privacy concerns, and the challenges of managing large-scale IoT networks.

2. IDEATHON 2022
   Galactic Problem Solver NASA International Space Apps Challenge – Participant

3. VLSI for Beginners, Completed on April 14, 2025
   NIELIT Calicut under C2S SMART Lab Project .

## WORKSHOP

1. PCB DESIGNING Conducted by Inovact, February 21, 2023

   Gained hands-on experience in designing and prototyping printed circuit boards (PCBs) using industry-standard software (Diptrace). Collaborated with team members to design, layout, and test PCBs for various electronic applications.

2. NANO SATELLITE TECHNOLOGY, January 2024

   Acquired knowledge in satellite subsystems including communication, power, payload, and attitude control. Explored the challenges of satellite miniaturization, mission planning, and orbit dynamics. Gained exposure to the complete lifecycle of a nano satellite project, from conceptualization to testing and deployment.

3. 2nd Workshop on “Present and Future Computing Systems”, Conducted by Department of Computer Science and Automation, Indian Institute of Science (IISc) - Bengaluru, November 29 2024 – December 2 2024

   Analysed the evolution of computing architectures and their impact on performance, scalability, and energy efficiency. Collaborated in hands-on activities focused on testing prototype – AIPC (Intel)

## SKILLS

- Hardware Description Language: Verilog
- Languages: C, Python
- PCB Designing
- Cryptography
- MATLAB