

# NAREN MOORTHY.S

Madurai, India

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## EDUCATION

<b>Amrita Vishwa Vidyapeetham University</b> <i>B.Tech Computer Science &amp; Engineering (CGPA of 8.41)</i>	<b>2023 - 2027</b>
<b>Velammal Bodhi Campus, Madurai</b> <i>Grade 12, CBSE, Science with Computer Science (92.4%)</i>	<b>2022 - 2023</b>
<b>Queen Mira International School, Madurai</b> <i>Grade 10, CBSE (94.6 %)</i>	<b>2020 - 2021</b>

## EXPERIENCE

### NullClass | Web Application Hacking Intern

Krishnagiri, TamilNadu

- Successfully identified and reported a critical Open Redirect vulnerability in a live e-commerce site. Performed vulnerability assessments, manipulated HTTP traffic, and discovered hidden directories.
- Completed OWASP Top 10 training and applied it in real-world bug bounty and CTF-style tasks.

## PROJECTS

### Route Optimization for Drones | DSA, Quad Trees, Segment Trees, A\*, Min-Heap |

- Built a drone routing system that can handle both static and moving obstacles. Quad Trees and Dynamic Segment Trees helped to index the environment faster, and Min-Heap-based A\* search was used to update routes on the fly.
- These optimizations led obstacle checks to become about 40% quicker, route recalculations dropped by roughly 30%, and the system used around 15–18% less battery during longer paths.

### AirCursor–VisionTransformer | Python, PyTorch, ViT-Base |

- Developed a gesture-controlled cursor using a fine-tuned ViT-Base model. Created own dataset, trained the model with AdamW, and tested it using a confusion matrix before running it live through a webcam.
- The model reached 98% accuracy, responded in under 35 ms, and approx. 20–25% smoother compared to earlier CNN experiments.

### Heimdall (DDoS) – Real-Time Network Intrusion Detection System | Python, Scapy, FastAPI, WebSockets, Linux |

- Engineered a high-performance packet sniffer using Scapy and FastAPI, employing a multi-threaded architecture to decouple packet capture from the WebSocket stream for zero-latency, real-time traffic analysis.
- Implemented a "Hybrid Mode" threat detection engine that simulates enterprise firewall logic, instantly cross-referencing live IPs to distinguish and visualize high-velocity DDoS attack patterns versus legitimate traffic.

### Supply Chain Traceability (FrozenFood) | Solidity,EthereumSepolia,Web3.js |

- Created a blockchain-backed traceability platform that records each stage of a frozen food batch on Ethereum Sepolia. Designed smart contracts in Solidity using structs and mappings to manage batch creation, transfers, and recall logic.
- Integrated Web3.js for front-end verification and event monitoring. This on-chain workflow improved transparency across suppliers and reduced the chances of data tampering while enabling faster recall identification.

## CERTIFICATIONS

### The Complete Cybersecurity Course - Volume 1 (Stationx)

- Major topics covering encryption, anonymity, malware, and core security principles. Built a clear conceptual foundation before moving into hands-on cybersecurity work.

### Google Cybersecurity Professional Certificate – Foundations of Cybersecurity (1/8)

- Introduction to the basics of cybersecurity, including threat types, risk management, and security roles. Developed a solid starting point for understanding how cybersecurity teams operate.

## ACHEIVEMENTS

- Class Representative during my First Year at my University.
- Part of the Student Council at Queen Mira International School as a Minister of Information & Broadcasting.
- Received the prestigious Scholar Badge Award in the 4th, 6th, 7th & 8th standard along with the Ignited Mind Award resulting in receiving the Blue Blazer.
- Runner Up at Al Sadiq Cricket Tournament - 2014 and other Cricket Tournaments as well and Won Relay Races and a 50m Sprint in DPS.
- Member of the AMUNSO (Amrita Mock United Nations Society)
- Received the Shining Star Award for excellence in academics during my 11<sup>th</sup> standard at Velammal Bodhi Campus, Madurai.
- Represented my school (QMIS) in the IIMUN 2019 Mock Parliament.
- Represented my school (Velammal Bodhi Campus) in the Inter-School Debate Competition (The Bait) during my 11<sup>th</sup> standard.

## PROFILE LINKS

- Leetcode: [https://leetcode.com/u/\\_naren\\_18/](https://leetcode.com/u/_naren_18/)
- GitHub: <https://github.com/Naren-bit>

## TECHNICAL SKILLS

**Languages:** Java, Python, C++, C, HTML/CSS, JavaScript, SQL

**Technologies/Frameworks/Libraries:** Node.js,React.js,Express.js, MongoDB, Nmap, WireShark, BurpSuite, GoBuster, MetaSploit