Charan Annadurai

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Summary

TÜV SÜD certified **ISO 270001 Lead Implementer**, **Blockchain Developer** with a proven track record and a **Security Researcher** with multiple peer-reviewed published works. Possesses functional knowledge in cybersecurity, compliance and blockchain development, including proficiency in coding languages like Python and JavaScript.

Skills

Tools: Python, JavaScript, C++, SQL, Bash, Java

Others: Hyperledger Fabric SDK (Node.js, Python, Go), Web3.js, Scikit-learn, Matplotlib, PowerBI, AVISPA (for security verification), Docker, OpenCV, TensorFlow, Pandas, NumPy, Flask, FastAPI, Linux, Git

Education

Hochschule Offenburg, Offenburg University of Applied Sciences, MS in Enterprise and IT Secuirty	Sept 2022 – March 2024 GPA: **1.33** (91.75%)
Amrita Vishwa Vidhyapeetham, Coimbatore, B.Tech in Electronics and Communication Technology	June 2018 – May 2022 GPA: **2.10** (7.81/10)

Experience

Assistant Vice President – IT Security & Compliance, RUGR SIL – India — Present

- Leading enterprise-wide **IT security, compliance, and infrastructure hardening** initiatives, including ISO 27001 readiness, risk remediation, SOC review coordination, and policy governance.
- Collaborating with management and technical teams to resolve vulnerabilities, strengthen access control, and drive secure-by-design practices across cloud and on-prem environments.
- Driving implementation of **audit frameworks, documentation standards, incident response processes**, and regulatory compliance procedures.
- Key Words: ISO 27001, Risk Management, Compliance, SOC Reviews, Infrastructure Hardening, Access Control, Governance, IT Security.

Research Associate, Institute of Reliable Embedded Systems and Communication Electronics (ivESK) – Offenburg, Germany — May 2024 – May 2025

- Designed and implemented blockchain-based trust frameworks with a focus on **regulatory-compliant data exchange** in **Health Data Sharing Agreements** and **Agricultural Supply Chains**, ensuring **data integrity, auditability,** and **participant accountability**.
- Designed a decentralized authentication framework leveraging **Decentralized Identifiers (DIDs)** and **Verifiable Credentials (VC)** to enable **privacy-preserving authentication** in Multi-Agent Systems (MAS).
- Key Words; Compliance, Smart Contracts, Data Privacy, Access Control, Hyperledger Fabric, DID, VC, Trust, Docker, JavaScript.

Research Assistant, Institute of Reliable Embedded Systems and Communication Electronics (ivESK) – Offenburg, Germany — Oct 2023 – Mar 2024

- Analyzed an existing mobile back-end, created **compliance focused documentation**, and designed initial UML and state diagrams to transition it into a blockchain-based system.
- Migrated legacy mobile infrastructure to a **secure Hyperledger Fabric-based backend**, reinforcing **access control** and **policy-based permissions**.
- Keywords: UML, System Analysis, Documentation. Javascript, APIs, JSON, Hyperledger Fabric, Docker

AWS Cloud Intern, F13 Tech Delhi, IN   Nov 2021 – Jan 2022

- Drafted a requirements document for the purpose of acquiring a tender contract and curated a set of recommended services for **Indian Railway Catering and Tourism Corporation (IRCTC)**.
- Acquired multiple AWS Partner certificates as part of the training process.
- Key words: AWS, Cloud Computing, Instances, EC, EBS, APN

Publications

Distributed Authentication using Self Sovereign Identities   Nov 2024

Charan Annadurai, Axel Sikora, Dominik Welte

10.1109/ICETI63946.2024.10777147

Privacy Preservation with Decentralized Authentication in Multi-Agent Systems   Mar 2025

Puspanjali Ghoshal, *Charan Annadurai,* Axel Sikora, Ashok Singh Sairam

10.1109/ANTS63515.2024.10898962

Projects

Incentivizing Scientific Research Using a Reputation Scaled Proof of Stake Blockchain   Github

- Designed and implemented a **custom blockchain** from scratch in Python.
- Developed a **scaled Proof-of-Stake model** for a decentralized social media platform focused on incentivizing scientific discourse.
- Tools Used: Python, FastAPI

Intelligent Threat Prevention System (ITPS)   Github

- Developed an AI-powered Intrusion Prevention System (IPS) to detect real-time threats using a hybrid approach of **Anomaly-Based and Signature-Based detection.**
- Successfully detects attacks such as **SQL Injection (SQLi),** Cross-Site Scripting (XSS), and Cross-Site Request Forgery (CSRF).
- Tools Used: Python, TensorFlow, Scikit-learn, FastAPI, PowerBI.

Secure Password Management Using Python and FastAPI   Github

- Developed a Secure Password Management System to enhance credential security.
- Followed Secure Software Development Lifecycle (SDLC) best practices.
- Tools Used: Python, FastAPI, Security Practices

Achievements

- Certified **ISO 270001 Lead Implementer**
- Placed 3rd in **CISCO's Thinkubator Ideation Bootcamp** - 2021
- Fee Waiver for Master's Business Consultant Training Path (Amazon Partner Network)
- **IELTS SCORE** - 8 Band (of 9)
- **Computer Vision** - Image Basics with OpenCV and Python (Coursera)
- **Introduction to Cybersecurity** - Cisco (Netacad)
- **Introduction to Cybersecurity for Business** - University of Colorado Systems (Coursera)