Sahana Sridhar

Curriculum Vitae



Summary

Associate System Engineer with 3+ years of experience in the information technology and services industry. I have recently submitted my Master Thesis in Post-Quantum Digital Signatures, based on cryptographic hard problems. My core competence is in telecommunication networks, network security, cryptography and PKI, ethical hacking, data-warehousing, mainframes development, database management, and IT testing.

Experience

Aug 2019 Ethical Hacking

Dec 2019 Norwegian University of Science and Technology (NTNU), Trondheim, Norway

• CTF-style competitive course gaining valuable skills in reverse engineering, forensics, cryptographic challenges, web & binary exploits and other general programming / scripting skills.

June 2019 Summer Intern

Sept 2019 ITU-T Focus Group for Machine Learning in 5G networks, Trondheim, Norway

- Studied current standard ways of representing Machine Learning (ML) use cases in 5G networks.
- Created network service descriptors in TOSCA (cloud orchestration language), for machine learning use cases using Open-baton Virtual Network Functions Orchestrator (VNFO) in Docker containers.

Dec 2014 IT Test Specialist - Data Warehouse Team

Apr 2018 IBM India Pvt Ltd, Bangalore, India

- Validated and analysed static web-reports of customer's usage data for possible revenue maximization for a Telecommunication client.
- Identified and rectified inefficiencies in existing Mainframes' unit-testing and system-testing frameworks to enable faster and less error-prone testing.
- Developed new smaller, efficient testing frameworks in mainframes that reduced testing times by 80%.
- \circ Experienced in integration and E2E testing in accordance with the scope of the deliverables and their business impacts.
- Re-designed parts of the existing databases using Teradata SQL to improve query response times and performance by 50%.
- Experienced in working on deliverables in lean and agile / scrum methodologies.

Education

Aug 2018 Master of Science in Communication Technology

Feb 2021 Norwegian University of Science and Technology (NTNU) Trondheim, Norway

- Master Thesis: "A Survey of Quantum-safe Digital Signatures and their building blocks"
- Survey of post-quantum digital signature candidates of the NIST standardization, based on quantum-safe cryptographic constructions.

Jul 2010 Bachelor of Engineering in Telecommunication

Aug 2014 BNM Institute of Technology (BNMIT) Bangalore, India

- Bachelor Thesis: "Secure encryption of images using multiple chaotic maps"
- Analysis of the effect of using Logistic, Chebyshev and Skew-Tent Maps, individually and in different combinations, on the secure encryption of images.

Technical Skills

Programming Languages

C, C++, Python, COBOL, REXX, VHDL, Verilog, Shell-scripts and TOSCA (YAML-based)

Softwares & Tools

Burp, Metasploit, Nmap, Wireshark, Docker, Openbaton VNFO, MATLAB, Teradata 14 (SQL), SoapUI, SCLM, Changeman, Tortoise Subversion and Git

Operating systems

Linux/Unix system, Windows, z/OS and z/VM Mainframes

Languages

English (Fluent, bilingual) Kannada (Native tongue) Hindi (Fluent)

Norwegian (Basic - A1/A2)

Extracurriculars

2018 - Jenteprosjekt Ada - NTNU, Trondheim

Present • Member and participant in seminars and workshops on cloud computing, machine learning and cyber security.

Recognition

Letter of Appreciation

Contribution for the summer internship project 'Network Service Definition' at ITU-T

Spark Excellence Award

Recognition for upholding the IBM core value 'Putting the client first'

Hobbies

Learning new technologies, solving puzzles, reading novels, singing, Indian classical dancing and volunteering