Sandeep Kiran Pinjala

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PhD candidate with 16+ years of IT experience. I build secure systems using cryptographic protocols to solve real-world problems. My current research involves building practical *plausibly deniable* systems that are truly private and censorship-resilient. I am also investigating the impact of ARM Trustzone on securing embedded applications.

EDUCATION

Stony Brook University, *PhD, Computer Science* | New York, USA   Jan 2022 - present
Advisor: Prof. Radu Sion
GPA: 3.97 / 4.0
                                                                                        Aug 2016 - Jan 2020
Indian Institute of Technology Madras, *MS, Computer Science* | Chennai, India
Advisor: Prof. Krishna Sivalingam
Thesis: Access Control and Anonymous Credential Mechanisms for Security and Privacy in Internet of Things
GPA: 8.6 / 10
Jawaharlal Nehru Technological University, *B-Tech, Electronics and Communications* | Hyderabad,   1998 - 2002
India
Grades: 78%

PUBLICATIONS

- **SK Pinjala** , Bogdan Carbunar, Anrin Chakraborti, Radu Sion, "INVISILINE: Invisible Plausibly-Deniable Storage", IEEE Symposium on Security and Privacy (S&P), 2024
- **SK Pinjala**, S. S. Vivek and K. M. Sivalingam, "Delegated Anonymous Credentials With Revocation Capability for IoT Service Chains (DANCIS)," in IEEE Internet of Things Journal, 2022
- **SK Pinjala** and K. M. Sivalingam, "DCACI: A Decentralized Lightweight Capability Based Access Control Framework using IOTA for Internet of Things," 2019 IEEE 5th World Forum on Internet of Things (WF-IoT), 2019

EXPERIENCE

HCL Technologies, *Senior Technical Specialist* | Chennai, India)   2013 - 2021
- Technical Architect and Product Owner of 3 engineering scrums
- Engineering lead for Cisco's Identity Service Engine (ISE), Email Security Appliance (ESA), Web Security Appliance (WSA), ASA-CX, Hyperlite
- Design and implementation of important security features on Cisco's products like OAuth, DANE, TEAP, Cloud based TrustSec, Certificate based Authentication for web logins, SAML
- POC for critical customer issues on ISE Network Access (NA), ESA/WSA
- Member of "League of Outstanding HCL'ites" for 7 years
- Won awards across various HCL and Cisco's Hackathon and Innovation events

Teradata, *Senior Software Engineer* | Hyderabad, India)   2006 - 2013
- Technical lead for Teradata's Gateway and Security (GTW-TDGSS) group
- Design and implementation of key features into Teradata such as Proxy authentication mechanism, Network traffic compression, AES-256 in TD2, LDAP test driver, TGTE
- Fixed critical customer issues with massive deployments
- Won the NOTT award twice

CMC-Ltd, *Software Engineer* | Hyderabad, India   2005 - 2006
- Design and development of OSKER (Open SCADA Kernel) for real time event processing
- Preparation of SRS, design of the new HO and DCS interface modules
- Commissioning of OSKER at 4 different NTPC sites

SKILLS

Languages	C/C++, Python, Java, Bash
Networking	TCP/IP, Firewall, IDS/IPS, 802.1x, PKI, Radius, Tacacs+, DNS, DNSSEC, BitTorrent, IPFS
Software and Utils	Linux, Docker, Node.js, gdb, git, dm-crypt
Security Protocols	LDAP, Kerberos, SSL/TLS, SAML, OAuth, SASL, EAP-TLS, EAP-TEAP

PROJECTS IN PROGRESS

Access Control with ARM TrustZone – *Usenix Security Conference* (Paper in submission)   Feb 2024
- Design of an Access Control Framework for protecting applications using ARM TrustZone

Plausible Deniable Blockchains

- Design of a Blockchain that guarantees deniability under coercion