Romanch Sachdeva

Cybersecurity Engineer/Architect

A seasoned cybersecurity engineer with a passion for crafting innovative solutions and optimizing processes, I bring extensive experience in cloud engineering and code-sign security to the table. My expertise lies in developing, automating, and implementing robust secure software and procedures, ensuring swift and effective solutions are shaped to address complex real-world problems. As a skilled professional with a keen analytical mind, I'm well-versed in IT skills and technologies, utilizing them to form scalable frameworks. I'm currently pursuing a Master's degree in IT at UTS to further hone my skills and propel my career towards shaping the future of computer systems.

Work History

August 2021 – January 2024

Cybersecurity Engineer
HP Inc.

Experienced Cybersecurity Engineer adept at securing complex cloud and hybrid systems. Computerized, built, assessed, and administered security best practices for enhanced organizational posture.

Key Responsibilities: -
- Cloud Security Architect: Designed and deployed proactive security solutions to monitor & strengthen cloud posture.
- Security Policy & Controls: Established comprehensive policies & procedures, apply & manage effective controls.
- Vulnerability Assessment & Remediation: Identified and mitigated security risks in applications & code across cloud environments.

Achievements: -
- Standardized Security Architecture: Streamlined architecture across cloud & hybrid systems, boosting efficiency by 20%.
- Quantum-Resistant Security: Pioneered a future-proof code-sign certificate mechanism for amplified security.
- Multi-Cloud Network Optimization: Steered the expansion & optimization of network security across multiple platforms, solidifying overall posture.

February 2021 – August 2021

Cybersecurity Intern
HP Inc.
- Streamlined cross-OS access to AWS EC2 instances with a self-developed federated login tool, increasing efficiency and security for Windows, Linux, and macOS users.
- Safeguarded sensitive data with custom Azure policies, leading to a 40% reduction in security incidents related to unauthorized access.

May 2020 – June 2020

Intern (ECE)
Continental AG.
- Studied and analyzed the status of the products per customer and sensors used for **Wheel Speed and Antilock-Breaking System.** Project included hardware analysis of retracted sensors and analyzing faults.

May 2019 – June 2019

Microsoft Training Associate-Intern
Verzeo
- Studied Introduction to programming and ML with python. Project included building a **cx-freeze application** and utilizing a prediction model and training algorithm for **real time use on stock prediction.**

Education

February 2024 - Current

Master of Information Technology- Cybersecurity
University of Technology Sydney (UTS) - Sydney, NSW, Australia

July 2017 – June 2021

Bachelor of Technology: Electronics and Communication
Vellore Institute of Technology (VIT) - Vellore, Tamil Nadu, India
CGPA: - 8.62

Contact

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Location
Harris Park, NSW, 2150

Technical Skills

- Python
- HTML
- JavaScript
- C
- Java
- C++
- Power BI
- React.js
- Microsoft Azure Cloud
- AWS Cloud
- GCP
- CSS
- Selenium
- Postman
- Bash
- Code-sign RSA
- Code-sign Quantum Resistance

Professional Skills

- Critical thinking
- Problem Solving
- Communication
- Collaborative and team work
- Time management
- Adaptability and Resilience
- Leadership and Project management

Accomplishments

- Security Aspects and Privacy Outlook in D2D Communication - A Survey: Research Paper(http://sersc.org/journals/index.php/IJAST/article/view/31738)
- Won AWS-HP GameDay 2022
- 3rd Podium Finisher at Multi Customer AWS Gameday 2021
- Reached Top 10 of the 700 teams in Reboot-hackathon organized by IEEE RAS
- Reached Level 2 in Flipkart Grid 2.0 Robotics 2020 – Top 15 in VIT University

Projects

- **Federated Connection to AWS EC2 Instances and AWS RDS**
  Created a smart handy tool to get connected to AWS EC2 Instances and RDS Databases employing Federation login and System manager, giving the ability to list all/running instances, connect with IAM Authentication bringing in search option that works on multiple OS as such Linux, Windows and Mac.

- **AWS Port Monitoring**
  Visualized, maintained and put into effect an AWS Config event-based approach to revoke non-whitelisted open ports and IPs for external/internal facing services. Developed a flask app portal for whitelist and approval of the ports.

- **AWS Prowler Security Scan**
  Constructed and programmed the execution of Prowler tool scan for AWS organizational accounts using CloudFormation, Autoscaling group and Security Hub. Designed Admin and User portal to view scanned reports for security architecture review.

- **Azure Policy Enforcement and Enablement**
  Devised custom Azure policies for enabling Auditing on SQL Server and Databases. Disabling IP forwarding on NICs and sensitive ports denied from internet.

- **Apple, Android, and Windows Code-signing**
  Invented and produced a custom tool to convert the process for code-signing of Apple certificates and Android Developer teams. Enhanced certification process for Windows application developers with Portal design and Signing CLI Client reducing time of key generation by 90%.

- **Quantum-Resistant Code-sign Certificate Software**
  Led the development of quantum-resistant code-sign certificates, ensuring future cryptographic resilience. Oriented and instituted the software architecture to handle millions of signing jobs and contributed to research and development in advanced IT solutions.

- **Multi-Cloud Network Security Optimization (AWS & Azure)**
  Piloted the multi-cloud network security optimization by expanding controls from security groups to network access control lists. Put in place backend software and web portal to handle automatic exception requests to strengthen overall organizational security posture.

- **SSO Shift from ADFS to PING MFA**
  Automated to authenticate and establish temporary credentials for AWS Account users and roles with selenium, saml2aws and expanded and upgraded the command-line tool to switch IAM roles.

Volunteering and Position of Responsibility

- **Institutes Innovation Council (MHRD) – VIT – IPR Coordinator**
  Led the IPR department, managed university level events and acted as the consulting party for schools, clubs and chapters.

- **Helphen India - NGO**
  Volunteered at Helphen India for 12 months for Project Kinder to teach students.

- **UTS RNA, Student Association and Blue Bird Pantry Volunteer**
  Volunteered at UTS Respect Now and Always and UTS Student Association and Blue Bird Pantry as a team member.

- **IEEE- Power and Energy Society – VIT - Chairperson**
  Lead the team of more than 80 students, managed events/workshops and conducted technical competitions, conducted Cryptic Cache with over 2000 participants.

Competencies

- Software Development
- Security consultation
- Cloud implementation
- Security regulations compliance
- Security vulnerability assessment
- Security infrastructure architecture
- Architecture review
- Programming literacy in Python and Java

Major Certifications

- **AWS Certified Developer – Associate** - January 2024
- **AWS Certified Solutions Architect - Associate** – December 2023
- **Google Cloud Certified Cloud Digital Leader** – September 2023
- **AWS Certified Cloud Practitioner** – September 2022
- **Azure for Developers** – April 2021
- **Master the coding Interview: Data Structures + Algorithm** – May 2020
- **Data Scientist with Python Track** – September 2018

Referees

- **Abhishek Bhadoria**
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- **Ralf Hoelzer**
  Director, Architecture and Security Engineering, HP
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  Letter of Recommendation
- **Rupika Jain**
  Senior Manager, Architecture and Security Engineering, HP
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  Letter of Recommendation
- **Sasikumar Devarajan**
  Manager- Cybersecurity, HP
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- **Akash Salave**
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