H.L.S.R.P DE SILVA
Software Engineer

Personal Information

Address
NO23, Middle Road, Fort, MATARA

Phone
0710400415
0773940090

Date of birth
1994-Oct-20

NIC
942943881V

Civil status
Single

Nationality
Sri lankan

E-mail
sachin.ramesh.sr@gmail.com

LinkedIn
sachee-ramesh

Google Scholar
Sachin Ramesh

ResearchGate
Sachin_Ramesh

Blog
Sachin Ramesh – Medium

GitHub
Sacheeramesh

YouTube
The God's Eye

I am an open-minded, friendly and resourceful person with a sound and optimistic outlook on all aspects of life, and I utilize my skills and abilities in the cybersecurity and software industry as a secure software engineer, which offers professional growth while being innovative and flexible. Possess an excellent ability to work with challenging technology, Passion to learn and try cutting-edge technologies, the ability to integrate them into existing solutions, motivate others, and, have strong technical skills as well as strong interpersonal skills coupled with the ability to communicate comfortably at all levels. Therefore, ensuring an excellent working environment for all members of the team to perform at their very best and to strive till the end to achieve the goals and objectives for the team as well as myself.

Education

Degree

B.Sc. Special (Hons) in Information Technology specialization in Cybersecurity
Graduated Date – 10th Feb 2020

Sri Lanka Institute of Information Technology (SLIIT)
WGPA 3.84 (out of 4.0) - **First Class Honors with Merit Award**
Student ID – IT16135680
Student Profile - http://student.sliit.lk/profile/index.php

Awards

- Merit award for demonstrating academic excellence from 2016 to 2020 (Batch top).
Sri Lanka Institute of Information Technology (SLIIT)

- Selected to Dean's List award for each and every semester (All 8 semesters)
Sri Lanka Institute of Information Technology (SLIIT)

- Best Cybersecurity Research Paper of ICAC international conference 2019
Won the best cybersecurity research paper award of IEEE International Conference on Advancements in Computing 2019 (ICAC) held in Dec 2019, for the research "Adaptive authentication service for any identity server".

IEEE ICAC 2019
http://www.icac.lk/

Certifications

2020 Dec
Certified Web Application Security Tester (C-WAST)
10-Dec-2020   Marks – pending
CYBER SECURITY & PRIVACY FOUNDATION PTE LTD

2019 Oct
Completed Fundamentals of Deep Learning for Computer Vision - Digital Certificate
6-Oct-2019   Marks – 100/100
NVIDIA DEEP LEARNING INSTITUTE

2019 Apr
Completed CCNA Security: Cybersecurity Operations
06-Jul-2018 to 30-Apr-2019   Marks – 97.45/100
Cisco Networking Academy

2018 Jul
Completed CCNA Security: Implementing Network Security 2.0
1-Feb-2018 to 31-Jul-2018   Marks – 99.78/100
Cisco Networking Academy

School

Rahula College Matara.

GCE Advanced Level 2017(index no: 6039103)
Information & communication technology – B
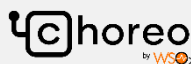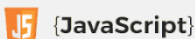Mechanical technology – C
Communication & media studies – C
Z-score – 1.5078

GCE Ordinary Level 2011(index no: 61370916)
Overall passes 4As, 3Bs, and 2 C's
ICT – A   English – B   Mathematics – A   Science -A

Programming Languages

Security Tools

🏋 Experience

2021 Sep

Software Engineer – WSO2
01-Sep-2021 to – (Currently working)

I am working as a full-stack software engineer in the Digital Transformation team of WSO2. My main responsibility is to design, test, and implement various software applications, scalable web services, and automation to support and increase the efficiency of current manual processes and fulfill internal needs. In my job role, I was responsible for Defining the scope and scale of software projects with the software development team, defining the timelines of the development, Architecture design for software systems, Creating data structures and design patterns, implementing scalable web services, applications, and APIs, development and maintenance of internal software tools, writing low-level and high-level code, troubleshooting, and bug fixing, enhancing software efficiency by identifying bottlenecks, designing the user experience (UX) and developing user interfaces(UI), and Writing technical documents. apart from contributing to the open-source projects owned by WSO2. We are the first line of customers who integrate these middleware apps. So we will identify issues and improvements. Then contribute to them accordingly.   I am working with the WSO2 Identity Server, SCIM2.0, WSO2 Ballerina, WSO2 Choreo, React, LDAP, GIT, and Google App Scripts.

2021 Sep

2021 Mar

Cybersecurity Engineer - hSenid Mobile Solutions Pvt Ltd
01-Mar-2021 to – 31-Aug-2021

I worked as a Cybersecurity Engineer at hSenind Mobile Solutions. My main responsibilities include researching and developing internal tools, as well as developing external customer projects in a secure manner and hardening the systems with tools like OpenSCAP. It is my responsibility to ensure that the cybersecurity of all these tools and solutions is at an acceptable level. To support this process, I have to learn the latest technologies, communicate with clients and internal developers to get requirements, understand the application scope, define improvements (both technical and functional), and adapt security to new trends. Apart from that, I am working on managing and ensuring the security compliance of deployment and development environments, automating manual processes, and developing new tools, and applications.

2021 Mar

2020 Dec

Temporary Lecturer cybersecurity, Distributed systems - University of Ruhuna
07-Dec-2020 to – 01-Mar-2021

I was worked as a temporary lecturer at the University of Ruhuna, faculty of Technology from December 2020. I am conducted the modules of Cybersecurity and distributed systems for both 3rd and 4th-year students. Apart from that, I am a member of the final year research evaluation panel.

2020 Nov

2020 Aug

External Software/Security Engineer - vfullstack Pvt Ltd
21-Aug-2020 to – 13-nov-2020

I have worked as a full-time external security/software engineer at vFullstack Pvt Ltd for a 2-month project. In this period, I have contributed by analyzing and defining the (security/coding) standards and best practices that should comply with developing the solution, ensuring the security of the SDLC stages. Consulting to the employees to achieve the security requirements as well as client requirements of the project and train them to handle security incidents and other security-related tasks. Did some threat modeling and software/security testing of the project to ensure the project is at an acceptable level. Contribute to both static and dynamic security testing of the project and analyze and improve the project security status. Java, SQL, PHP, JS Angular, Node, Express was frequently used in this period of time.

Company website - https://www.vfullstack.com/

Skills

Adapt to new technology

Communication

Problem-solving

Attention to detail

Object-Oriented Design

Logical Thinking

Object-oriented programming (OOP)

OWASP

Security Consulting

Secure SDLC

Identity & Access Mgmt

Security incident handling

Information Security handling

Secure coding practices

Threat & Vulnerability Mgmt

Risk Management

Automation/devops

Penetration testing

Encryption & Key Mgmt

Cloud security

Maintain Security Systems

Analytical and diagnostic

2020 Dec
2020 Jan

Full Stack / Security Engineer & Academic Helper – Freelancing
02-Jan-2020 to – 10-Dec-2020

Since January 2020, I have worked as a full-time freelancer in full-stack software engineering / cyberSecurity development and academic helping fields. In this period, I have worked with security testing both network and application, vulnerability management, security engineering, pen-testing, data obscuring, database security (both SQL/ NoSQL) aspects, and, programming languages like java, angular Js, React Js, python, Node Js, C, C++, C#, asp.net, etc. Then I used technologies like Machine learning, Mobile responsive development, Security testing, Security engineering, MVC, etc. In the academic helping domain, I have worked with students in both foreign and local universities like SLIIT, NIBM, Rajarata, Moratuwa, DEAKIN University Australia, Holmesglen Institute - City Campus Australia, Melbourne Polytechnic Preston Campus Australia, Victoria University Australia, Southern Cross University Australia, etc. My academic helping career is known by the name "MakeYouPass.com" and I have provided service to Information technology and Security-related modules like Developing, Networking, and Cybersecurity.

Academic Helping startup - https://www.facebook.com/MakeYouPass
WhatsApp business account - +94773940090

2019 Jan
2018 Jul

Platform Security Engineer (Trainee) – WSO2
15-Jul-2018 to 15-Jan-2019

I have worked as a trainee platform security engineer at WSO2 for six months. In this period, I have worked with both security engineering and secure development. I have defined a list of computer security standards and practices that the WSO2 should follow to ensure and demonstrate the security of its products and services. Upgraded the Patch Management System (PMT) of the company for better security and effective patch management of the company products. PMT was developed in the jaggery language, so it is necessary to learn it before upgrading it successfully. Contribute to developing the Security Manager opensource security testing tool, which is released by the platform security team of WSO2 by developing and designing the security manager engine and the scanning containers of Qualys and Veracode. Apart from these projects, I have worked with Secure Software Development, Version Control, Secured Enterprise Software Architecture, Secure Coding Standards, Vulnerability Management (Include Static, Dynamic, and 3rd party dependency vulnerability scanning), Qualys, Veracode, OWASP ZAP and FindSecBugs, Secure Microservice Development, Secure OAuth application development.

📈 Projects and Researches

HRIS App–2022
A custom HRIS application was developed covering use cases of promotion, resignation, interview process, payroll, etc. The front-end dashboard application was developed with React and the backend was written with WSO2 Ballerina. The application was a web application and web services were hosted in WSO2 Choreo and the react application was hosted in AWS. HRIS system has multiple access control levels based on the user roles. Authorization and role-based access control were implemented with the WSO2 Identity Server and JWT standard. The application supports identity federation with OAuth 2.0. The application was released in versions. The audience of the application are HR team, internal and external employees, and higher management.

React, WSO2 Identity server, LDAP, Gsuite email automations,Ballerina, Choreo, oauth 2.0, mySQL.

Organizational Entity Development.–2022
Developed standardized entities that can be accessed by the entire organization. These entities were developed with graphQL so that consumers can access the entities and filter them by their requirements. In this project, I had to collect use cases for common objects and generalize them to design an organization wide supported entity service.

People HR, graphQl, Ballerina, Choreo, mySQL.

Google Sheet Integrations.–2022

There were several Google Sheet integrations with Google App scripts that were done. I've implemented a custom menu on Google Sheets to read data from specific sheets, process them, and trigger an email based on that data. The email template, recipients, sender, CC, and content were dynamically processed based on the sheet's content. After the process was completed the data was migrated to another sheet named archived or error, depending on the success or fail.

Google sheets, Google app scripts, Gsuite, Automation.

Google Form Integrations.–2022

Google form integrations were done to automate emails and data processing once a response is submitted. The automation trigger was implemented with the Google App Script and integrated with Gmail and Google Sheets. Once a new response is submitted, the app script will process the data, and send an email with a dynamic template and content based on the data. It will also migrate data into different sheets.

Google form, Google sheets, Google app scripts, Gsuite, Automation.

Employee Onboarding/Offboarding App–2021

Developed a SCIM-based employee onboarding/offboarding system that worked on top of the WSO2 identity server and LDAP. This application handles the whole process from creating an LDAP user and provisioning that user to the local identity server and outbound provision to Google. It also gives required permission and access to other systems like Git. For the employee offboarding part, remove all access from external and internal systems, remove LDAP roles and move users to archived user stores with sanitization to remove sensitive and personally identifiable information. This has multiple access levels that authorize functionalities based on the user's role.

React, WSO2 Identity server, SCIM2.0, LDAP, Gsuite, Outbound Provisioning, Ballerina, Choreo, WSO2 APIM.

Foodily – Food and Nutrition Social Media App –2021

The app allows users to handle Meal posts, Search Meal posts, Personnel file Uploader, and Daily nutrition tracker. The application is developed with react and node.

NodeJs, ReactJS, ExpressJS, JSON base Web Services, NoSQL Database (MongoDB), JEST, HTML/ JavaScript

myGarden – Cross-platform Flower Tracking App - 2021

A cross-platform support mobile app was built with a real-time database to track flowers by taking pictures and saving them with relevant details. the application was developed with flutter and firebase.

Flutter, Android, ios, Firebase

Online Shopping Cart System for a Fashion Store – 2020.

The web application was developed with role-based access control and four functionalities of user management, cart management, payment management, and inventory management. The online payment form is fully validated by using a stripe.

*NodeJs, ReactJS, ExpressJS, JSON base Web Services, NoSQL Database (MongoDB), JEST, HTML/ JavaScript*

Lexa - The artificial consultant agent – 2020 – **Github FE, Github BE**

Research and development of a chatbot based on Deep Neural Networks to help Sri Lankan citizens to find the best path to ensure they won't face any difficulties when they have to get done the most frequent and common government tasks. Lexa is a Natural Language processing support web application with voice activation functions that allow users to speak the problem using familiar languages like Sinhala or Singlish to get guidance. DNN model had a loss of 0.00002 and the total accuracy of the value is 1.000. that is 100%.
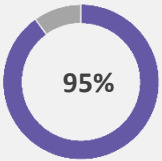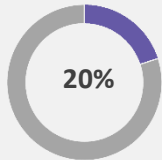
Deep Nural network, Angular

Language Proficiency
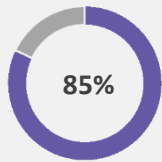
85% — **English - Advanced**

95% — **Sinhala - Proficient**

20% — **Tamil - Beginner**

AuthDNA - Adaptive authentication service for any identity server – 2019 - **ieeexplore**

Research and development of adaptive authentication services for any Identity Server. This will identify the user based on four categories and calculate the risk level associated with the user and based on the risk level and assurance level required to authenticate the user, the service will challenge the user with the user-specific next factor(s) of authentication. All the risk calculations and matching are done with deep neural networks and machine learning. The research paper is awarded as the "Best Cybersecurity paper" of the International Conference on advancements in computing 2019 and published in the IEEE library.

Deep learning, Geo Location, Android, Behavior analysis

Scan Manager - Open source security scanning tool – 2019 - **GitHub**

Contribute to the open-source security scanning tool developing project at WSO2 by designing and developing the Scan manager Engine. The tool was designed to conduct both static and dynamic security scans. The tool includes scanners like Veracode, Qualys, etc. And developed as a web app using the spring framework and docker environment.

Spring MVC, Docker, Java

Review paper on "Blockchain Security" – 2018 - **Drive**

This review paper is written based on research done in the domain of blockchain security. In the paper, I have discussed the various definition based on how you are going to use the blockchain. From a business perspective Blockchain can define in its context and from technical perspective Blockchain can define in its view of that, etc. and the Security of the Blockchain, based on this all aspects of using it.

Blockchain

CSRF Protection with Synchronizer Token pattern - 2018 - **GitHub 1**, **GitHub 2**

CSRF (Cross-site request forgery) protection for web applications with the synchronizer token pattern and double submit cookie approaches.

CSRF, Web Security, PHP, Js.

Social Login with OAuth 2.0 – 2018 - **GitHub**

The project was about to simulate the social login feature that is used in modern web applications. It is to get resources from a trusted identity provider to the client application (relying party) on behalf of the resource owner. In this project, I simulate the process of requests that pass-through client applications, trusted identity providers, and resource owners (user) and handle the secure transmission of access tokens and resources.

oAuth, Web Security, PHP, Js

Survey report in Encryption – 2018 - **Drive**

As a project leader, we did research on the history of encryption, the evolution of encryption, the technology used, and modern encryption mechanisms. In the research, we found the basic mechanisms of encryptions and how they are used in modern encryption algorithms in more secure ways. Also, we found the main problems in encryption mechanisms and common solutions to mitigate these problems.

Cryptography

Review paper on "AI-Powered Cyber Attacks" – 2018 - **Drive**

I have successfully research, How modern technologies like AI (Artificial Intelligence) can be used in cyber-attacks and how they get advantages to cybercriminals over the traditional way of cyber-attacks. In this research, I discover how and when cybercriminals weaponized AIs and how they use this weaponized AI in attacks to gain an advantage. Also, I documented ways to mitigate the impacts of these kinds of attacks.

AI, Cybersecurity

Car Rental Management System (.net, android) – 2017

Speed Cabs Car Rental Management System (.net, Android, MySQL). A standalone and mobile application was developed. After 14 weeks, The client was provided with a fully functional system covering all the requirements(Vehicle/employee mgmt, Booking, login).

.Net, Android, mySQL

Vehicle Management System (Java) – 2017

SL Cabs Car Rental Management System (Java, SQL Server), The application was developed in Java language using OOP concepts and JavaFX. The application was developed with all the functionalities to cover the requirements.

Java, MySql

SL Cabs Web Application (PHP) – 2016

The application was developed using PHP, JavaScript, Bootstrap, HTML, and CSS. The System was helpful for the customers who are willing to obtain services like viewing and booking cabs.

HTML, PHP, JavaScript, CSS, MySQL

� Extracurricular activities and Personal interests

- ☐ Member of The Computer Society of Sri Lanka (CSSL)
- ☐ Organizing Committee Member of Cyber Security Community of SLIIT– 2019
- ☐ Event Organizing team member of SLIIT Faculty Of Computing Student Community
- ☐ Co-organizer of School ICT club – 2013
- ☐ Organizing Committee Member of School Science Club and Media Club – 2013
- ☐ Lance Corporal – School Cadet platoon 2008 – 2011
- ☐ Ethical hacking
- ☐ Extreme Super Sports (Super Bike / Car Racing)

� Non-related Referees

Academic

Mr. Kavinga Abeywardena
BSc(Hons) Herts UK, MSc(Hons) Kingston UK
Lecturer,
Program Coordinator: BSc in Information Technology (Cyber Security) SLIIT.
Sri Lanka Institute of Information Technology Malabe.

Phone : +94769045678
Email: kavinga.y@sliit.lk

Professional

Mr. Tharindu Edirisinghe
Graduate Researcher - Cybersecurity Room 217,
Physical Sciences 1 (PS1) Building,
Department of Computer Science and Information Technology School of Engineering and Mathematical Sciences La Trobe University,
Bundoora, Victoria 3086, Australia

Phone : +61 444 555 793
Email: e.edirisinghe@latrobe.edu.au