Sathya Ramanathan

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Education

Oregon State University | Sept 2015 – Sept 2019

- Bachelor of Science (BS), Computer Science
- Specialization in Cybersecurity

Projects

Personal Website | https://satcom237.github.io/website

Google Authenticator | C++

- Developed an application that uses a Time-Based One Time Password (TOTP) algorithm to generate One Time Passwords (OTPs) every 30 seconds
- Improves device security by 76% by incorporating two-factor authentication
- Implemented in C++ utilizing the HMAC-SHA1 function (OpenSSL Library)

MyHoneyPot | Python

- Created a honeypot that logs unauthorized sample attempts to a server
- Used Tableau to process and analyze the relationship between malicious transactions and time by applying visual representations
- Sends email alerts of suspicious activity to admin increasing overall security
- Implemented in Python and Tableau

Restaurant Web-App | PHP

- Created the front and back ends with a group for a sample restaurant where users can log-in, reserve a table, view the menu, and redeem coupons
- Inserts and retrieves data from a MySQL database with efficient scalability
- Implemented in MySQL, PHP, and HTML/CSS

Ecological Footprint App | Java

- Calculates user's ecological footprint and provides sustainable local suggestions
- Incorporates a self-contained SQL database leveraging faster transactional speeds
- Implemented in Java (Android Studio) using SQLite and Google Location API

Skills

Languages: (*Proficient*): C, C++, Python, SQL (*Familiar*): Scala, Java, PHP, JavaScript

Tools: AWS, Docker, R, Git, Apache Spark, Hadoop, Tableau, Node.js, MySQL, NoSQL, Jupyter Notebook, Databricks, Postman, and Agile methodology

Security: Malware & Threat Detection, Penetration Testing, Network/Web security, Digital Forensics, TCP/IP, SIEM Tools, IAM, PKI, Metasploit, OpenSSL, and YARA

Courses

Algorithms, Data Structures, Software Engineering I/II, Cloud/Web Development, Programming Language Fundamentals, Open Source Software, Operating Systems I/II, Theory of Computation, Computer Networks, Database Management Systems, Linux System Administration, Cryptography, Network Security, and Digital Forensics