GEORGE SEBASTIAN

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SUMMARY

Cybersecurity professional with expertise in ethical hacking, network security, and penetration testing. Experienced in leading cybersecurity initiatives and developing innovative solutions. Seeking a challenging role to leverage technical skills and enhance organizational security.

PROFESSIONAL EXPERIENCE

INTERN   **KOCHI**
TECH BY HEART   **Apr 2020 – May 2020**
- Participated in a one-month remote internship at TBH in April 2020, focusing on cybersecurity.
- Developed and tested malware detection protocols

EDUCATION

B. TECH IN COMPUTER SCIENCE AND TECHNOLOGY   **Karunya Institute of Technology and Sciences**
CGPA : 6.1   **2021-Present**

Grade 12   **Devamatha CMI Public School**
Percentage : 80%   **2021**

CERTIFICATIONS

- Google Cybersecurity (Google): Issued March 2024
- Enterprise-grade AI (IBM): Issued Nov 2023
- Cloud Security (Cisco): Issued Jul 2023
- CCSK Foundation Training (Cisco): Issued May 2023
- Advanced Open-Source Intelligence and Privacy (EC-Council Learning): Issued Jan 2023
- Azure Fundamentals AZ-900 (Microsoft Certified): Issued Oct 2022
- ISEA Certified Cyber Hygiene Practitioner (MeitY): Issued May 2022
- Cybersecurity Essentials (Cisco): Issued May 2022
- Introduction to Cybersecurity (Cisco): Issued May 2022

EXTRACURRICULARS

CYBERSECUIRTY CLUB   **KARUNYA**
HEAD   **Sep 2023 - Present**
- Currently serving as the Head of the Cybersecurity Club.
- Responsible for managing client relations, ensuring satisfaction, and addressing any concerns.
- Elevate the club's presence through events and competitions, fostering a vibrant cybersecurity community.

HEAD OF TRAINING AND GUIDANCE   **Aug 2022 – Sep 2023**
- Responsible for leading the training initiatives within the Cybersecurity Club.
- Developed and implemented training programs focused on cybersecurity principles and practices.

PROJECTS

FASTAPI STUDENT MANAGEMENT SYSTEM
- Developed a RESTful API using FastAPI to manage student and mentor data, enabling CRUD operations for both entities.
- Implemented data validation using Pydantic schemas to ensure the integrity and consistency of input data.
- Utilized a MySQL database to persist mentor and student information, enabling efficient data storage and retrieval.

SECURE API DEVELOPER - ANTI-WEBSCRAPING DEFENDER
- Developed a robust authentication service using FastAPI framework, implementing cutting-edge security measures to defend against webscraping and malicious activities.
- Designed and implemented rate limiting middleware to prevent abuse, behavioral analysis to detect suspicious user agents, and honeypot detection to deter automated attacks.
- Integrated external IP health check services to verify the health of incoming IP addresses, ensuring the integrity of user authentication processes.

AI-BASED INTRUSION DETECTOR SYSTEM (IDS) DEVELOPMENT
- Developed an AI-based Intrusion Detection System (IDS) leveraging Random Forest Regression, optimizing model performance through hyperparameter tuning techniques such as Grid Search and Random Search.
- Enhanced network security by accurately identifying and classifying network intrusions, providing a proactive defense mechanism against potential threats.
- Implemented data preprocessing techniques including feature scaling and label encoding, ensuring the data is appropriately prepared for model training and evaluation.

IOT FALL DETECTION SYSTEM WITH BLYNK INTEGRATION
- Developed an IoT-based fall detection system using an ESP32 microcontroller and MPU6050 sensor to detect sudden falls in real-time.
- Integrated the system with the Blynk IoT platform for remote monitoring and alerts, enabling users to receive notifications on their smartphones.
- Configured adjustable fall detection thresholds and provided easy-to-follow setup instructions, ensuring seamless deployment and customization for end users.

SECUREMULTIGATE
- Developed SecureMultiGate, a secure authentication system for multi-client environments, utilizing Python with Flask for server-side implementation.
- Implemented client-server communication using the requests library and integrated advanced encryption techniques using the cryptography library to ensure data confidentiality and integrity.
- Designed a scalable and customizable architecture, allowing for seamless integration with existing infrastructure and providing robust security measures for protecting sensitive resources.

CHATCONNECT
- Developed a Flutter app enabling users to easily connect with their contacts via WhatsApp.
- Implemented intuitive input validation for phone numbers, ensuring accurate communication channels.
- Integrated url_launcher for seamless redirection to WhatsApp, enhancing user engagement.

PRISON MANAGEMENT SYSTEM DEVELOPMENT
- Created a Prison Management System using Python and MySQL, integrating Tkinter for GUI and MySQL Connector for database connectivity.
- Implemented functionalities for adding, updating, and deleting prisoner records, ensuring data integrity and providing clear user feedback.
- Designed an intuitive interface with thematic styling, hover effects, and an About section for transparency and acknowledgment.

SKILLS

Technical
- Python
- Penetration Testing
- FastAPI
- Metasploit
- Network Security
- Linux Proficiency

Non-Technical
- Communication
- Critical Thinking
- Team Management
- Languages: Hindi, English, Malayalam, Tamil