Alwin Shibu

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Experience

lpdevosolutions August 2024 – Present
Freelance *Remote*

- Developed optimized, scalable applications in Python, Java, C, and C++, enhancing performance and reliability for client-specific use cases.
- Engineered robust system architectures, integrating efficient algorithms and data structures to support high-throughput, low-latency solutions.

RedTeam Hacker Academy Dec 2024 – May 2025
Cybersecurity Internship *Kochi, India*

- Conducted Vulnerability Assessment and Penetration Testing (VAPT) on simulated network environments.
- Exploited vulnerabilities using tools like Nmap, Burp Suite, Metasploit, Nikto, and SQLmap.
- Practiced real-time attack scenarios through Capture the Flag (CTF) challenges.
- Drafted structured vulnerability reports including remediation recommendations aligned with CIS Benchmarks.

NeST Technologies October 2022
Intern *Aluva, Kerala*

- Contributed to IoT solution development with integrated hardware and software.
- Optimized sensor data collection, improving deployment speed by 20%.
- Resolved real-time issues in production-level hardware and software systems.

Education

Bachelor of Technology in Computer Science and Engineering
Rajagiri School of Engineering and Technology *kakkanad, Kerala*

Projects

SQL Injection Detection Tool *(Python, Requests, BeautifulSoup, urllib.parse)*

- Developed a web vulnerability scanner in Python using requests, BeautifulSoup, and URL manipulation to detect SQL Injection vulnerabilities by analyzing form inputs and submitting malicious payloads to target URLs.
- Implemented SQL injection detection logic by identifying common error messages in server responses, enhancing security testing by automating vulnerability scanning across multiple forms and web pages.

Machine Learning-Based Forecasting of Gold Prices *(Python, Pandas, NumPy, Scikit-Learn, Matplotlib, Seaborn)*

- Developed a Gold Price Prediction model using Python, applying data preprocessing, statistical analysis, and Random Forest Regressor with Scikit-Learn, achieving high accuracy (R^2 score).
- Visualized data insights and model performance with Matplotlib and Seaborn, enhancing interpretability through comparison of actual vs predicted values.

AI Tic-Tac-Toe using Minimax Algorithm *(Python, Tkinter)*

- Built a GUI-based game using Minimax algorithm with alpha-beta pruning.
- Designed efficient game logic for move evaluation and result detection.
- Integrated real-time UI updates with an intuitive user interface.

Port Scanner *(Python, Socket Module,Sys Module)*

- Designed and implemented a command-line port scanner using Python, capable of scanning all 65,536 TCP ports on a target host.
- Utilized socket programming to establish network connections and identify open ports, demonstrating expertise in network communication protocols.
- Implemented comprehensive error handling mechanisms to ensure program stability and provide informative error messages for scenarios like hostname resolution failures and server unavailability.

Technical Skills

Programming Languages: Java, Python, C, C++, SQL, JavaScript, Bash.
Version Control: Linux, Git, GitHub, GitLab.
Cybersecurity Tools: Nessus, Burp Suite, Metasploit,ExploitDB,SQLMap,Wireshark,Ettercap,Hydra,Hashcat.
Familiarity: TCP/IP, DNS, HTTP,OWASP top 10,Docker

Certification

- **Certified Penetration Tester** –RedTeam Hacker Academy