



Firzan Irfandi Firman

Cryptography • Digital Forensics • IoT



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About Me

As a computer scientist by-training, I like to explore the deep roots of Computer Science theories, philosophies and perspectives, overlooking current happening innovations engineering-wise, while thinking what's possible by analyzing current trends and research gaps. I did my Master's Degree (MIT) in Cybersecurity and Bachelor's Degree with Honors (S.Kom) in Computer Science in top-tier universities in Australia and Indonesia respectively.

Languages

English

Bahasa Indonesia

Skills

Languages

- Python, C++, Go, Bash, SQL

Operating Systems

- Windows, Linux

Industry Knowledge

- Decentralized Systems, Internet of Things, Cryptography, Digital Forensics, Cybersecurity, Troubleshooting

Education



2022 - 2023 | MIT, Cybersecurity

University of Technology Sydney



2014 - 2020 | S.Kom, Comp. Science

Universitas Gadjah Mada (UGM)

Experience



2022 - 2023 | Graduate Student

University of Technology Sydney

Master of Information Technology (MIT), specializing in Cybersecurity. Did thesis using the combined topics of Digital Forensics + IoT + IPFS.



2020 - 2021 | Post-Sales Engineer

Netpoleon Indonesia

Handling cybersecurity software systems such as CyberArk (PAM software), Sonatype (DevSecOps software), and Aqua (Cloud Native Security software) as a Post-Sales Engineer. Conduct troubleshooting on the installed systems if there is a problem and create health check reports for various organizations and enterprises.

Certifications

EC-Council

Certified Ethical Hacker
EC-Council

Nov 2021 - Nov 2024

Credential ID ECC8209365174

Experience (Continued)

Telkomsel

2018 | Business Intelligence Intern
Telkomsel

Querying on a database using Teradata SQL, and code the imported data using Python to acquire insights for business.

Awards

Postgraduate Academic Excellence International Scholarship

Issued by University of Technology Sydney · Feb 2022

Awarded a scholarship designated for international students in UTS for the duration of the postgraduate coursework study.

Publications

Prototype for IoT Forensic Evidence Storage and Retrieval on IPFS

University of Technology Sydney · 2023

This research presents a new prototype that utilizes the InterPlanetary File System (IPFS) for the purpose of securely managing forensic evidence. The decentralized structure of the InterPlanetary File System (IPFS) effectively tackles the issues associated with centralization, hence strengthening the integrity and accountability of digital artifacts' chain of custody. The prototype utilizes IPFS to guarantee the immutability of data, its availability, and efficient removal of redundancy. This research is supervised by Dr. Xu Wang.

Memory Forensics: Automated Random Access Memory Data Acquisition and Analysis for Digital Forensics Investigation

University of Technology Sydney · 2023

This research develops a technique that is able to do Data Acquisition from a Random Access Memory (RAM) to help prosecutors in doing data acquisition thus can conduct analysis from a certain evidence. This technique is in the shape of a Python script, utilizing WinPMem for dump file creation from the RAM, and Volatility 3 to access the dump file for further analysis. Research is co-authored by Ying-Yi Wang and Tajmim H. Purnata.

Automated Data Acquisition of NTFS and FAT File System for Digital Forensics Universitas Gadjah Mada (UGM) · 2020

This research emphasizes on an automated data acquisition on two types of file systems, namely NTFS and FAT, which includes a handful of processes that was based on digital forensic procedures. The program will run on Debian-based Linux. The automated data acquisition program is written in Python programming language by importing the necessary libraries and utilities. A case brief is simulated for this program. The results show that the program was able to do data acquisition. The program was able to acquire data from a storage. The program was also able to view files, directories and hidden file available within a storage. This research is supervised by Prof. Dr.techn. Ahmad Ashari, M.Kom.