Firzan Irfandi Firman

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EDUCATION

University of Technology Sydney Sydney, New South Wales, Australia
MIT, Master of Information Technology - Cybersecurity *Feb 2022 – Dec 2023*
GPA & WAM: 6.44/7.0 & 83.38/100

- Ranked No. 17 in the world for Computer Science and Engineering in the 2023 ShanghaiRanking GRAS.
- Ranked as the No. 1 institution in the Pacific Region for Computer Science in SCImago Institutions Rankings as of 2023.
- Thesis: "Prototype for IoT Forensic Evidence Storage and Retrieval on IPFS".

Universitas Gadjah Mada (UGM) Yogyakarta, Indonesia
S.Kom, Bachelor's Degree with Honors - Computer Science *Sep 2014 – Feb 2020*
GPA: 3.07/4.0

- Considered as one of the most prestigious universities in Indonesia with a very low acceptance rate.
- Ranked No. 2 in Indonesia in overall (World Rank: 263) according to QS WUR 2024.
- Thesis: "Automated Data Acquisition of NTFS and FAT File System for Digital Forensics".

PROFESSIONAL EXPERIENCE

Netpoleon Indonesia (PT. Indopoleon Technology) Jakarta, Indonesia
Post-Sales Engineer *Jul 2020 – Oct 2021*

- Handling cybersecurity software systems such as CyberArk (PAM software), Sonatype (DevSecOps software), and Aqua (Container 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.

Telkomsel (PT. Telekomunikasi Selular) Jakarta, Indonesia
Intern, Business Intelligence *Jan 2018 – Feb 2018*

- Querying on a database using Teradata SQL to extract data.
- Code the extracted data using Python to acquire insights for business decisions.

LICENSES & CERTIFICATIONS

Certified Ethical Hacker (CEH) Issued Nov 2021 – Expires Nov 2024
EC-Council *Credential ID ECC8209365174*

SKILLS

Programming Languages: Python, C++, Go, Bash, SQL
Operating Systems: Windows, Linux
Industry Knowledge: Decentralized Systems, Internet of Things, Cryptography, Digital Forensics, Cybersecurity, Troubleshooting
Languages: Indonesian (Native), English (Professional)

PUBLICATIONS

Prototype for IoT Forensic Evidence Storage and Retrieval on IPFS

Associated with University of Technology Sydney

Published November 20, 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 used a Raspberry Pi device to effectively acquire and analyze /var/log/auth.log files, therefore showcasing the functionality of capturing, securely storing, and retrieving forensic

data on IPFS. The prototype utilizes IPFS to guarantee the immutability of data, its availability, and efficient removal of redundancy. This research showcases the potential to enhance the reliability of forensic data management in a way that is both technically competent and complies with legal requirements.

- This research is supervised by Dr. Xu Wang.

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

Associated with University of Technology Sydney

Published October 20, 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.
- This research is co-authored by Ying-Yi (Earl) Wang and Tajmim H. Purnata.

Automated Data Acquisition of NTFS and FAT File System for Digital Forensics

Associated with Universitas Gadjah Mada

Published January 24, 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.

Honors & Awards

Postgraduate Academic Excellence International Scholarship

Awarded by University of Technology Sydney

Feb 2022 − Dec 2023

- Awarded a scholarship designated for international students enrolled in University of Technology Sydney for the duration of the postgraduate coursework program.