

# Firzan Irfandi Firman

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## EDUCATION

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### University of Technology Sydney

MIT, Master of Information Technology - Cybersecurity

Sydney, New South Wales, Australia

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)

S.Kom, Bachelor's Degree with Honors - Computer Science

Yogyakarta, Indonesia

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

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### Netpoleon Indonesia (PT. Indopoleon Technology)

Post-Sales Engineer

Jakarta, Indonesia

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)

Intern, Business Intelligence

Jakarta, Indonesia

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

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### Certified Ethical Hacker (CEH)

EC-Council

Issued Nov 2021 – Expires Nov 2024

Credential ID ECC8209365174

### SentinelOne Advanced Response

SentinelOne

Issued Oct 2020 – No Expiration Date

No Credential ID

### CyberArk Certified Trustee

CyberArk

Issued Sep 2020 – No Expiration Date

Credential ID 1225218

## SKILLS

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**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

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### **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

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### **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.