

# Fajar Malik

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## Education

- M.Sc. Norwegian University of Science & Technology (NTNU)**, Information Security & Cloud Computing   Trondheim, Norway  
2023 – 2024
- Information security specialization track for the double degree master program.
  - Coursework:** Advanced Ethical Hacking, Wireless Network Security, Critical Infrastructure Security
- M.Sc. Aalto University**, Information Security & Cloud Computing   Espoo, Finland  
2022 – 2024
- Awarded full scholarship from the European Union for the Erasmus Mundus Joint Master double-degree program (3.5% acceptance rate).
  - Coursework:** Cryptography, Information Security, Laboratory Works in Networking and Security
  - Current Grade:** 4.17/5.00

## Experience

- Aalto University**, Research Assistant (Thesis Worker)   Espoo, Finland  
Feb 2024 – present  
7 months
- Designing and developing a federated authentication protocol for short-lived container environments. Conducting formal security analysis using ProVerif to verify the security of the authentication protocol.
  - Skills:** Network security, cloud, automated formal verification, federated authentication.
  - Tech:** Docker, Linux Scripting, JavaScript, Python, ProVerif.
- Aalto University**, Research Assistant (Course Developer)   Espoo, Finland  
May 2023 – Aug 2023  
3 months
- Developed automated grading system for course Cloud Software & Systems. Fixed a security bug where a student was able to submit other student's submission.
  - Tech:** GitLab CI/CD, Shell Scripting, Docker, Kubernetes.
- Aalto University**, Teaching Assistant for Information Security   Espoo, Finland  
Sept 2022 – Oct 2022  
1 month
- Assisted students during hands-on exercises on a wide array of cybersecurity topics.
  - Skills:** Cybersecurity, SQL injection, password cracking, XSS, buffer overflow.
- OmahTI UGM**, IT Project Manager / Consultant   Indonesia  
Dec 2018 – Dec 2019  
1 year 1 month
- Successfully delivered 14 projects providing software solutions for our customers. Acquired excellent acceptance rate & increased revenue. Resolved issues regarding project scopes & documentations.
  - Skills:** Project management, communication, negotiation, requirement analysis.

## Projects

- Wireless Network Penetration**   2023
- Captured network packets to crack password in Wi-Fi networks using WEP and WPA2-PSK (course project).
  - Technologies:** Airodump-ng, Wireshark, John-the-ripper.
- Windows 7 Buffer Overflow Exploit**   2023
- Exploited a buffer overflow vulnerability to gain Remote Code Execution on Windows 7 (course project).
  - Technologies:** Kali Linux, Immunity Debugger, Python.
- Smoke Beefs (Animal Growth IoT Tracking System, Customer Project)** [Google Play Store Archive](#)   2021
- Developed an Android app for a client, serving as a tracking dashboard. The project won a prestigious national research competition, showcasing innovation and technical excellence.
  - Technologies:** Android Studio, Kotlin, Firebase, Raspberry Pi, Arduino, sensors.

A list of my projects can be found in [my portfolio website](#) 🔗

## Skills

**Programming Languages:** Python, C++, Go, Java, Kotlin, JavaScript

**Technologies:** ProVerif, Linux Scripting, Git, Docker, React, Android Studio

**Interests:** Cybersecurity, software development, consulting