

MURAT BILGEHAN ERTAN

 [LinkedIn](#)  [Github](#)  [ORCID](#)

Education

Vrije Universiteit Amsterdam

MSc in Computer Security

2023 - 2025

Amsterdam, Netherlands. cGPA: 8.8/10.0

Sabanci University

BSc in Computer Science and Engineering

2019 - 2023

Istanbul, Turkey. cGPA: 3.59/4.0

Work Experience

PRODAFT

Security Researcher & Developer

Aug 2022 – Present

Netherlands, EC3 partner of EUROPOL

- Developing autonomous frameworks for threat intelligence analysis using C++, Python, Golang, TypeScript, RabbitMQ, Celery, and MongoDB, while also leveraging machine learning to enhance system capabilities and accuracy.

Vrije Universiteit Amsterdam

Teaching Assistant

Nov 2023 - Jan 2024

Amsterdam, Netherlands

- Worked as a teaching assistant during the course of Secure Programming in Vrije Universiteit Amsterdam.

KocLab, Sabanci University

Research Assistant

Mar 2022 – Feb 2023

Istanbul, Turkey

- Worked under Prof. Cetin Kaya Koc focusing on Reinforcement Learning, Cyber-Physical Security, and Cryptography.

Tulpar Hyperloop

Co-Founder & Head of Software

Feb 2021 – Sep 2021

Istanbul, Turkey

- Managed software development for Hyperloop technology, focusing on system design and implementation; Hyperloop represents a revolutionary high-speed transportation system that utilizes enclosed tubes for passenger and freight transport.

Turkcell

Security Management & Architecture Intern

Jun 2021 – Aug 2021

Istanbul, Turkey

- Researched HTTP Secure Headers, Password Policies, Session Management, and JWT Token Security under the supervision of Necati Ersen Siseci.

Publications

Unveiling Cyber Threat Actors

Sep 2022 – May 2023

- Developed a hybrid deep learning approach for behavior-based threat actor attribution, employing natural language processing and machine learning.
- Published in ACM Journal: Digital Threats: Research and Practice (DTRAP) 2024. <https://doi.org/10.1145/3676284>

Projects

Domain Generalization with Satellite Images

Jan 2024 – Present

- Conducting research with Associate Professor Erchan Aptoula at Sabanci University, focused on applying domain generalization in computer vision to analyze satellite imagery across different landscapes and countries.

Implementation of a Post-Quantum Cryptographic Algorithm: SABER/Dilithium

Oct 2020 – Feb 2021

- Implemented the Dilithium cryptographic algorithm in Python, explored optimizations for GPU or FPGA platforms.

Robotic Process Automation for Sabanci University

Sep 2019 – Jan 2020

- Created a desktop application to automate daily tasks of students using Selenium, UIPath.

Technical Skills

Programming Languages: C, C++, Python, Typescript, Node.JS, Golang, Rust

Technologies: RabbitMQ, Celery, MongoDB, MySQL, Django

Interests: Machine Learning, Deep Learning, Computer Vision, Software Development, Reverse Engineering, Cryptography, Network Security and System Security

Languages: Turkish (Native), English (Advanced)

Activities

2021-Present Board Member at University branch of Mimar ve Muhendisler Grubu (MMG) NGO.

2022 Exhibitor at GISEC'22 Dubai with HAVELSAN Company.

2021 Organizer of the Cyber Security & Hacking Competition at Sabanci University (SUCTF'21 and SUCTF'22).

2020 Co-Founder of Sabanci University Cyber Security Student Association.

2019 Volunteer for the Civil Involvement Project (CIP) at Sabanci University, working in nursing homes.

Certificates

Certified Threat Intelligence Analyst – EC-Council awarded me the Certified Threat Intelligence Analyst certificate.

GitLab Certified Associate – Awarded by completing the GitLab associate course and passing the exam.

London College of Music Examinations Pianoforte – Grade 3 PASS – Playing piano for nine years and achieved a Pianoforte certificate.