

## Mehmet Ustek

+44 07469011066 | ca23269@bristol.ac.uk | 21 St. Thomas Street, Bristol, BS1 6JS

<https://github.com/MehmetUstek>

<https://www.linkedin.com/in/mehmetustek/>

### SUMMARY

Cybersecurity Engineer adept at securing digital assets and crafting user-friendly applications. Skilled in vulnerability identification, robust security implementation, and innovative problem-solving. Proficient in frontend and backend technologies, committed to staying updated on cybersecurity trends. Known for analytical thinking and efficient project goal achievement.

### EXPERIENCE

#### Software Developer, Yapi Kredi Banking

Jan 2023 - August 2023

- Led frontend development as a full stack developer for the Bulk Money Transfer project at Yapi Kredi Bank Netherlands.
- Technologies: React with TypeScript, Redux SM, Java Spring Framework, Microservices, Agile Development, PLSQL, SDLC.
- Developed a secure application enabling international money transfers between clients and the bank in the Netherlands.
- Implemented input validations and null-safe frontends to enhance the security of web applications.
- Strengthened the security layer and optimized backend services for improved performance.

#### Software Developer, Huudle Technology

June 2022 - January 2023

- Developed null-safe frontends for mobile applications using React Native with TypeScript, while enhancing security between MySQL storage and Go backend service as a full stack developer.
- Ensured security and optimization of backend services for enhanced performance.

#### Backend Developer, Omnio Games

March 2022 - June 2022

- Developed and secured a backend service for a mobile game, optimizing performance and ensuring comprehensive testing of edge cases for backend security.
- Established effective communication between MongoDB storage and Java Spring backend service to enhance system functionality and data management.

#### Research Assistant, Koç University

January 2022 - June 2022

- Conducted research on Sweden, Finland, and Turkey's position on three main subjects under the title of sustainable development: Affordable and Clean Energy Development, Decent Work and Economic Growth, and Reduced Inequalities.

#### Software Engineering Intern, PwC, Turkey

April 2021 - August 2021

- Implemented backend services for the "Internal Firm Services" team, catering to various departments, particularly the finance team. Technologies: C# and Microsoft SQL.

### EDUCATION

#### MSc Cyber Security, University of Bristol

2023 - 2024

- Specialising in Network, IoT/IIoT, ICS Security. In-depth knowledge of network protocols, technologies, and architectures (e.g., TCP/IP, DNS, VLANs, VPNs). Applied experience of vulnerabilities and protections of Industrial Control Systems tools such as SCADA, HMI, PLCs, with protocols such as Ethernet/IP, Modbus, Step 7.
- Demonstrated strong comprehension of OSINT, vulnerability assessment, penetration testing, monitoring, effective mitigation strategies, as well as network and system security concepts.

#### BSc Computer Science, Koç University

2017 - 2022

- Grade: 2:1
- Mastering Certificate in Cryptography and Artificial Intelligence.
- Minor in Business Administration – GPA: 3.83 / 4.0 (First Class Honours)

## KEY SKILLS

Secure Coding Practices, Agile & Scrum Methodologies, ISO/IEC 27001, GDPR, NIST SP800-30/39, OWASP Top 10.

**Programming Skills:** Python, TypeScript/JavaScript (React.js, Node.js, Redux.js), Java, Go, C#, C/C++, SQL.

**Tools/Frameworks:** Burp Suite, Docker, Metasploit, Wireshark, Flutter, React Native, Python Flask, Java Spring Boot, CI/CD.

## LANGUAGES

Turkish (Native), English (Full Professional Proficiency - IELTS Academic 8.0/9.0)

## CERTIFICATES & AWARDS

- TryHackme Jr. Penetration Tester Certificate *Dec 2023*
- OWASP Top 10 & Secure Programmer Certificates *Apr 2023*
- Dean of Students Special Award *June 2022*
  - Awarded to recognize outstanding contributions to university and campus life.
- Vehbi Koc Scholar Award *June 2020*

## VOLUNTEERING

**Course Representative for MSc Cyber Security, University of Bristol** *Nov 2023 – Sep 2024*

- Working in partnership with the university staff to make the learning experience more enriching and impactful for all students.

**Chairperson, Koç University Marketing Club** *May 2020 – June 2021*

- Actively contributed to club-related activities from 2017 to 2021 as a loyal member.
- Managed a team of 350 individuals, fostering collaboration across various academic levels, and aligning efforts towards a shared goal.
- Oversaw the club's sustainable financial stability and maintained communication with the dean of students, ensuring that all profits generated within the club supported the university foundation.

## PROJECTS

Security vulnerability detection and likelihood prediction in IaC descriptive models *Dec 2023 – Present*

- Ongoing **MSc Thesis Project**. Detection of vulnerabilities in Infrastructure as Code configuration files, such as Docker Compose or Dockerfile, using Machine Learning and Natural Language Processing.
- Converting configuration files to their respective Abstract Syntax Tree representations and applying a machine learning model to detect and alert vulnerabilities. Used Python for ML, TypeScript for AST sensitivity labelling.

Docker Swarm with Domain Driven Design *November 2023*

- Implemented Domain Driven Design principles, containerizing the entire JavaScript code in microservices and forming a Docker Swarm with Canonical Multipass. Project Link: <https://github.com/MehmetUstek/MaxLive>

Time-Based One-Time Password (TOTP) Generator *October 2023*

- Developed a Time-based One-Time Password (TOTP) console application in C, leveraging OpenSSL libraries.
- Project Link: <https://github.com/MehmetUstek/TOTP-with-OpenSSL-C>

Instagram Threads Frontend Clone Application with Flutter *August 2023*

- I enhanced my frontend development skills by creating a Flutter-based clone of Instagram Threads, incorporating effective state management with Bloc. Project link: [https://github.com/MehmetUstek/threads\\_clone\\_flutter](https://github.com/MehmetUstek/threads_clone_flutter)

Image Based Similar Product Finder, **BSc Thesis Project** *Feb 2022 – June 2022*

- The project involved a team of four members. We utilized transfer learning with a pre-trained ResNet-50 model to classify shoe images and generate recommended variations of shoes based on the user's preferences.
- I orchestrated the implementation of machine learning models, backend, and frontend applications for a recommendation engine featuring image-based classifiers. I employed Flutter for the frontend, Python Flask and MongoDB for the backend, and Python for developing the ML models. To collect product features and images from a shoe producer, I integrated a Selenium web crawler into the process. Project Link: <https://github.com/MehmetUstek/Comp491>