# **FATMA ZEHRA AYTAS**

# **COMPUTER ENGINEERING**

Istanbul, TURKEY | +90 553 179 1884 | LinkedIn | GitHub | Portfolio | Medium | Gmail

I am an individual focused on improving myself in the fields of technology and engineering. I have developed projects in areas such as cybersecurity, gaming, and artificial intelligence. I am a team player and have demonstrated my problemsolving skills in various projects and competitions. I have a strong interest in learning and applying new technologies. My goal is to further develop the knowledge and experience I have gained and become a professional who creates innovative solutions and adds value in the technological world.

#### **EDUCATION**

Istanbul Aydın University | Istanbul, Turkey Bachelor of Science in Computer Engineering (100% Eng.) 2022-2027

3,53/4

#### **EXPERIENCE**

KENT TEKNİK KİMYA CONSTRUCTION INDUSTRY FOREIGN TRADE LIMITED COMPANY

JULY 2024 - ...

- I worked on the TSE process, focusing on the software of the machines used and the collection and analysis of data. I developed recommendations to speed up the TSE process based on the results obtained.
- I identified gaps in the ERP system used for product tracking and contributed to the development of a new ERP system

#### **EVENTS**

## Tübitak: Algorithmic Modeling of Multiplicative Rings - Cybersecurity

The project "Algorithmic Modeling of Multiplicative Rings" focuses on the algorithmic analysis and modeling of multiplicative rings. The project aims to explore the application of these mathematical structures in fields such as cybersecurity, cryptography, and education. The properties and behaviors of multiplicative rings are examined through algorithms, with the goal of developing innovative solutions to improve cryptographic methods and strengthen security protocols.

#### Teknofest: Technological Applications in Psychology Competition | TULPAR / KutAI

Developed a Unity-based interactive game that collects user interaction data and analyzes it using the Big Five personality model and Cognitive Behavioral Therapy (CBT) techniques, providing AI-generated psychological reports and personalized feedback. Led and coordinated a multidisciplinary team of 10 (AI engineers, game developers, psychologists, frontend developers). Gained proficiency in Ollama, n8n, HTML, CSS, JavaScript, and Node.js/Express.js

## **Bor-Eye: Al-Powered Border Security System**

3rd Place | Team: Bor-Eye | National Competency Initiative Camp – T3 Foundation Ideathon Competition Our project "Bor-Eye" is a smart border security system designed to enhance safety using artificial intelligence and image processing technologies. Developed an integrated solution that analyzes satellite (e.g., İMECE) and drone imagery to detect border violations and send instant alerts to security units. Capable of classifying threats such as humans, vehicles, and animals, and determining the direction and type of violation. Includes functionality to generate risk maps through historical data analysis.

## **RBAC-Based ERP Software**

This ERP software, developed using Java and SQL, utilizes the Role-Based Access Control (RBAC) model to manage user permissions across departments. It ensures secure data management, scalability, and ease of maintenance, helping businesses efficiently manage personnel, accounting, sales, and operations.

**Tic-Tac-Toe:** The game logic was implemented in a single class, without visual components, using only code. **2D Platformer Game:** Developed with separate images for characters and backgrounds, organized into multiple packages. It includes basic platformer mechanics like character movement.

These projects were my first games, helping me grasp object-oriented programming (OOP) and game development concepts

Luna - Movie Watchlist Platform: Java Swing for the user interface and MySQL for database management.

## **CERTIFICATIONS**

**DEFENSE INDUSTRY ACADEMY** - Milli Yetkinlik Hamlesi Camp **BTK ACADEMY** - Buffer Overflow Vulnerabilities and Exploit

Development - Certificate No: 9Xrtq0084n

BTK ACADEMY - DoS / DDoS Attacks and Protection - nKqhoMZ60W

BTK ACADEMY - Introduction to Cybersecurity - 4qguZPn2bD Se

BTK ACADEMY - SIEM Fundamentals - WJ1SMKPWLZ

BTK ACADEMY - Social Engineering and Phishing - yjahJylMJ

BTK ACADEMY - Telecommunications Systems Security - NowfrKeYd9

TURKCELL ACADEMY - Introduction to Cybersecurity

LINKEDIN LEARNING - The Cybersecurity Threat Landscape

**LINKEDIN LEARNING** - Cybersecurity Foundations

LINKEDIN LEARNING - Essentials of Sustainability: Core Concepts

**LINKEDIN LEARNING** - Productive AI: The Evolution of Thoughtful Online Search

TURKCELL ACADEMY - Pentesting

TURKCELL ACADEMY - Natural Language Processing

TURKCELL ACADEMY - - Deep Learning ANN TURKCELL ACADEMY - Deep Learning CNN

TURKCELL ACADEMY - Application-Based Deep Learning

**TURKCELL ACADEMY** - Introduction to Data Science and Artificial Intelligence

**BILGEIS** - Al for Everyone I - c00a3ef0-de57-11ef-bf0a-f91bc7d36f86 **BILGEIS** - Al for Everyone II - d5428760-de50-11ef-beb7-cb0634fb1fd