



## **EDUCATION**

### **Giresun University**

*BSc in Computer Engineering | GPA: 3.26/4 Giresun, Turkey | Oct 2021 – June 2025*

### **Ankara Akyurt Anadolu High School**

Ankara, Turkey | Sep 2016 - Jun 2020

## **EXPERIENCE**

### **Noykara | Machine Learning & Backend Engineer**

*Remote | Sep 2025 – Oct 2025*

- Developed a machine learning model for BIST100 stocks producing buy/hold/sell signals achieving ~0.67 Weighted F1-Score, ~230% return and 0.97 Sharpe ratio in backtests
- Built backend infrastructure with FastAPI, PostgreSQL, Docker, delivering scalable APIs serving both trading predictions and financial analyses
- Implemented multilingual (TR, EN, DE, KO) news summarization and analysis endpoints, assessing why news is important and which stocks may be impacted
- Designed customizable endpoints enabling users to add and manage their own news sources for personalized insights
- Integrated LLM (DeepSeek) for advanced summarization and a multilingual chatbot, enhancing user interaction
- Produced professional MLOps documentation, including Model Cards, data dictionary, runbook, ensuring reproducibility and maintainability

Tech Stack: Python, FastAPI, Docker, PostgreSQL, LightGBM, Scikit-learn, Pandas, NumPy, DeepSeek LLM, Git

### **Giresun University IT Department | Part-Time Software Engineer**

*Giresun, Turkey | Sep 2024 – June 2025*

- Researching novel metaheuristic algorithms and developing innovative steganography methods for enhanced data security
- Technical Stack: MATLAB, Python (OpenCV/Scikit-learn), Cryptographic Libraries

### **Giresun University IT Department | Software Development Intern**

*Giresun, Turkey | Jul 2024 - Aug 2024*

- Developed a Face Recognition & Emotion Analysis System with custom-trained CNN model, achieving 87% accuracy in real-time

## **Superprof | Online Tutor (Mathematics & Software Development)**

Remote | Apr 2023 – Present

- Mentored 15+ students with tailored lesson plans, improving average grades by 40%.
- Topics: Python, Java, Algorithms, Calculus.

## **MAN Türkiye A.Ş | Software Development Intern**

Ankara, Turkey | Jul 2023 - Aug 2023

- Developed backend systems using C# and SQL in the R&D department, configuring and testing AUTOSAR stacks (BSW modules) for automotive embedded systems and ECU integration
- Collaborated with cross-functional teams following Agile/Scrum methodologies to support automotive software development

## **Bionluk/Fiverr | Freelance Game Developer & Programming Tutor**

Remote | Jan 2022 – Present

- Delivered 50+ projects in game development (Unity), coding tutorials and projects (Python/Java).
- Maintained 4.9/5 client satisfaction rating across platforms.

## **PROJECTS**

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### **postaX: ML-Enhanced Smart Mail System | Graduation Project**

Giresun University, Turkey | Oct 2024 – June 2025

- Developing an intelligent mailbox system with advanced security using machine learning anomaly detection for unauthorized access attempts
- Implementing user behavior analysis algorithms to create security profiles and detect suspicious activities
- Engineering a comprehensive hardware solution integrating Arduino BLE33 Rev2, ESP32CAM, solenoid locks, and RFID authentication
- Designing an energy-efficient motion detection system that activates camera recording only when necessary
- Creating a resilient system with backup power and recovery codes to maintain functionality during power/internet outages
- Solving hardware integration challenges through master-slave architecture and alternative pin configurations
- Building a complete testing framework to validate system performance across multiple security scenarios
- Developing chatbot integration for instant notifications and remote control capabilities

Tech Stack: Arduino, ESP32, RFID, Machine Learning, Computer Vision, Solenoid Mechanisms, Servo Motors

**Steganography: Novel Method Development | Research Project**

Giresun, Turkey | Sep 2024 – Present

- Developing a new steganography method to enhance data security in digital images.
- Conducting extensive experimentation to improve the imperceptibility and robustness of hidden data.
- Currently in the research phase, testing the effectiveness of the proposed approach.

Tech Stack: Python, OpenCV, Cryptographic Libraries

**Metaheuristic Algorithm Optimization | Research Project**

Giresun, Turkey | Sep 2024 – Present

- Working on the development of a new metaheuristic optimization algorithm.
- Aiming to enhance solution efficiency in complex optimization problems.
- Currently in the theoretical and experimental phase, evaluating the algorithm's performance.

Tech Stack: MATLAB, Python

**Face Emotion Recognition with Face Attendance System | Internship Project**

Giresun, Turkey | June 2024 – July 2024

- Developed a real-time face emotion recognition and attendance system
- Achieved 87% accuracy in emotion detection across happy, sad, and angry categories.
- Integrated an automated attendance system that streamlines the manual tracking process.
- Designed an intuitive GUI for user-friendly interaction and efficient data visualization.

Tech Stack: Python, OpenCV, TensorFlow, DeepFace, Tkinter

**Aytar Drone | Teknofest Semi-Finalist | Software Developer**

Giresun, Turkey | Feb 2024 – Jun 2024

- Advanced to the semi-finals in Teknofest with a 90/100 preliminary score.
- Developed a voice-based emergency signal recognition system, creating software to accelerate search and rescue operations.
- Performed MFCC (Mel-Frequency Cepstral Coefficients) analysis on sound signals and created a multi-language system to detect emergency-related speech content.
- Added speech recognition support for Turkish, English, French, and Spanish, increasing the international usability of the system in rescue operations.
- Developed an algorithm to listen to real-time microphone input and detect key emergency words, automatically generating notifications for emergency calls.

Tech Stack: Python, SpeechRecognition, OpenCV, MFCC, Google Speech API, NLP

## **Sunflower Solar Panel Project | Student**

Ankara, Turkey | Aug 2018 – Oct 2018

- Led a team developing an Arduino-based dual-axis solar tracking system that increased panel efficiency by 30% while reducing costs by 15%
- Earned top 5% distinction certification, demonstrating proficiency in Arduino programming and mechatronics

Tech Stack: Arduino IDE, Servo Motors, LDR Sensors, SolidWorks, IoT Prototyping

## **SKILLS & CERTIFICATES**

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### **Technical Skills**

- **Programming & Databases:** Python, Java, C#, SQL, PostgreSQL
- **Machine Learning & Deep Learning:**
  - **Frameworks & Libraries:** LightGBM, Scikit-learn, XGBoost, TensorFlow, Keras, Pandas, NumPy, SHAP, OpenCV
  - **Core Concepts:** Financial Time Series, Feature Engineering, NLP, Computer Vision, CNN Architectures, Model Validation
- **Backend & DevOps:** FastAPI, REST APIs, Docker, Git, MLOps (Model Versioning & Documentation)
- **Hardware & Other:** Arduino, Raspberry Pi, Unity, MATLAB

### **Language Skills**

- **B2** – English
- **A1** – German

### **Certificates**

- Autosar Architecture (Learn from Scratch with Demo)(Udemy)
- Python | Sıfırdan İleri Seviye Programlama (Udemy)
- Sıfırdan Komple Java Geliştirici Kursu (Udemy)
- Kali Linux ile Etik Hacker Olma Kursu (Atil Samancıoğlu) (Udemy)
- Aygaz Python Bootcamp / Introduction to Python (Global AI Hub)
- Unity Game Engine Course (Rick Davidson, Ben Tristem as GameDev.tv) (Udemy)
- CS50's Introduction to Game Development / Introduction to Game Design / CS50's Introduction to Programming with Python (HarvardX)
- Arduino Eğitimi (Youtube)
- C# ile Algoritma ve Programlama 101 / Python 101, 201, 301, 401 (Turkcell Geleceği Yazanlar)
- Veri Okuryazarlığı / Veri Bilimi ve Yapay Zekaya Giriş 101 (Turkcell Geleceği Yazanlar)

### **References**

Available upon request.