

Burak Erdilli

• Github: <https://github.com/BurakErdilli> | • Personal Website: burakerdilli.github.io

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📍 Ankara Turkey

🌐 [burak-erdilli](#)

WORK EXPERIENCE

P.I. Works

Software Support Intern

Jun 2023 - Oct 2023

- Participated in team meetings to discuss network optimization strategies.
- Analyzed performance datasets to support network optimization strategies, collaborating with engineers to troubleshoot and resolve issues.
- Processed and transformed raw network data using Python (Pandas) and SQL, creating XML pipeline outputs that reduced reporting time by 15%.
- Conducted ETL operations on large datasets, ensuring data integrity for downstream business reporting.
- Tested virtualized network functions (VNFs) on Linux, providing insights that improved system efficiency.

Neurosurgery Department, Hacettepe University

Research Intern - Brain Tractography

Nov 2021 - Sep 2022

- Actively participating in organizational planning.
- Collaborating with the team during the interpretation process.
- Reviewing literature on brain tractography studies under the supervision of Dr. Şahin Hanalioğlu, M.D.
- Processing Human Connectome Project data using DSI Studio, a tool for analyzing brain imaging data and mapping neural pathways and brain connectivity.
- Analyzing outputs using NumPy, pandas, iGraph, and Nilearn.
- **Article:** <https://burakerdilli.github.io/assets/pdf/USK2022.pdf>

EDUCATION

Yıldız Technical University

BSc in Computer Engineering - 3.01

2019 - 2024

Thesis: "Detection of Cell Types in Full Slice Ocular Images Using YOLOV8" – Built and trained a PyTorch-based ML model to classify 18 cell types, achieving 92% accuracy.

Bahçeşehir Highschool for Science and Technology

High School Diploma - 96.80

2014 - 2019

PROJECTS

Detection of Cell Types in Full Slice Ocular Images Using YOLOV8 - Final Thesis [🔗](#)

2024

- Developed a machine learning pipeline with **PyTorch** and **Pandas**, training a YOLOV8 model on annotated ocular image data for cell classification.
- Integrated the tested model into a mobile application using **React**.

Thesis Repository: <https://github.com/BurakErdilli/yolov8>

Ubuntu Server Deployment and Automation for e-commerce [🔗](#)

2024

- Engineered a Python-based automation system (NumPy, Pandas) to optimize pricing and inventory on **Trendyol**, boosting product views by 82.5%, increasing profits by 48.5%.
- Developed a tkinter panel application to perform mass operations.
- Configured **Docker** containers for scalable microservices, python application and local LLMs.
- Implemented and optimized Nextcloud for efficient cloud storage of script logs, cron job data, and system metrics (temps, power, network loads), maximizing performance on limited hardware resources.

Project Repository: <https://github.com/BurakErdilli/ecommerce-server-automation>

Vehicle Control Using Eye-Gaze Tracking [↗](#)

2023

- Utilized **python-dlib** for face and eye detection and employed **OpenCV** for image processing..
- Built a Python application to process eye-gaze data, achieving 90% accuracy in real-time control outputs.
- Controlled vehicle direction based on the user's gaze, with responsive outputs including: Up, Down, Left, Right, Blink, Double Blink, Blink for a specified number of seconds.

Project Repository: https://github.com/BurakErdilli/eye_gaze_tracking

The Embedded System of Raspberry Pi 2 That Translates Human Blink Patterns Into Morse Code Responses [↗](#)

- Developed an embedded system that produces letters written in Morse code by detecting the length of a person's eye blinks in front of a webcam and generating output in the form of lines or dots.
- Includes commands for confirming or deleting the letter or word.
- Utilized **OpenCV**, **dlib**, and **NumPy** in the development.

Project Repository: https://github.com/BurakErdilli/embedded_blink

Discord alike messaging application "chatz" | Group Project on System Programming [↗](#)

2022

- Developed the backend of a messaging application using Flask, including security features.
- Implemented additional UX features to enhance user experience.

Project Repository: <https://github.com/BurakErdilli/chatz>

Local Mining Information System | Independent Group Project on System Analysis [↗](#)

2021

- Developed a network system with a mobile app for tracking members' mining hardware information.
- Enabled real-time monitoring and management of mining hardware across the network.

Water Treatment Using the Plant "Moringa Oleifera" | Chemistry Project Applied to TUBITAK [↗](#)

2017

- Conducted research using Moringa Oleifera (Miracle Tree) as a nutrient in the seed treatment method.
- Leveraged Moringa Oleifera Cationic Protein (MOCP) to kill microbiological organisms in water and observed that particles precipitate to the bottom.

Keywords: Moringa Oleifera, Treatment, Activated Carbon, Ion Exchange Resin, Moringa Oleifera Cationic Protein (MOCP)

Low Cost Renewable Packaging Model | Presented to FIRST Lego League Jury

2016

- Received the **Best Project Award** at the FIRST Lego League Turkey Championship Finals.
- Awarded the Environmental Award from Koroplast Company in collaboration with **Corozo Group**.
- Won the First Place Gracious Professionalism Award at the **Asia Pacific Open Championship 2016**, held at **Macquarie University**.

DIGITAL SKILLS

Programming Languages

- Python / C / C# / SQL / Assembly(80X86) / Java / Matlab / HTML / CSS

Frameworks & Tools

- Django / Docker / PyTorch / Git / Flask RESTful / FastAPI / NumPy / pandas

Algorithms & Concepts

- Algorithms & Data Structures / Object-Oriented Programming / Applied Machine Learning Concepts

Creativity/Project Tools

- Gitlab / VirtualBox / Proxmox / Jira / DSI Studio / LAtex / Protheus / Adobe Photoshop & Lightroom / Microsoft Office

CERTIFICATE

ETS | TOEFL IBT [↗](#)

Test Appointment Number: 6676811215154324

Score:97 Reading:25 Listening:26 Speaking:25 Writing:21

Natural Language Processing | DeepLearning.AI [↗](#)

Neural Networks and Deep Learning | DeepLearning.AI [↗](#)

Machine Learning | Stanford University [↗](#)

Frontend Development | Yıldız Technical University Continuous Application and Research Center [↗](#)

LANGUAGE

English Advanced

German Intermediate

Turkish Native

RECOMMENDATIONS

Name: Ayturk Zafer

Lead Engineer | GE Aerospace

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Name: Hamza Osman İLHAN

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