

Okday Ozturk

DATA SCIENTIST

Wichita, KS, USA

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Education

University of Tennessee, Knoxville

PH.D., COMPUTER SCIENCE

Knoxville, TN, USA

Aug. 2022 - Jul. 2026 (Expected)

Wichita State University

PH.D., COMPUTER SCIENCE

Wichita, KS, USA

Jan. 2022 - Jul. 2023

Nisantasi University

B.ENG., COMPUTER ENGINEERING

Istanbul, Turkey

Sept. 2017 - Jun. 2021

Experience

Research Assistant

WICHITA STATE UNIVERSITY

Knoxville, TN, USA

Aug. 2023 - Present

- Prepared course materials such as lecture notes, handouts, and presentations in collaboration with the faculty.

Research and Teaching Assistant

WICHITA STATE UNIVERSITY

Wichita, KS, USA

Jan. 2022 - Present

- Prepared course materials such as lecture notes, handouts, and presentations in collaboration with the faculty.
- Conducted and facilitated small group discussions, tutorials, or laboratory sessions, ensuring student engagement and comprehension.
- Assisted in grading assignments, quizzes, exams, providing detailed feedback to students, and maintaining accurate grade records.
- Reviewed over 500 applications for the master's program in computer science at Wichita State University, evaluating candidates based on academic qualifications, research experience, and other criteria to make admission decisions.
- Contributed to a computer vision research project by implementing various image processing and analysis techniques in Python.
- Developed and evaluated deep learning models for object detection using Python, and reported on the results in project meetings and research papers.

Data Engineer

METAMORFOZ ICT. INC.

Istanbul, Turkey

Jan. 2021 - Dec. 2021

- Managed and maintained high availability and reliable databases in MySQL, Oracle, and PostgreSQL for critical data used by the company's products and services.
- Utilized JasperReports to create reports and dashboards for business stakeholders, enabling them to analyze key metrics and make data-driven decisions.
- Developed Java-based data analysis tools to optimize data processing and analysis tasks, supporting the company's data-driven decision-making processes.
- Implemented new features and enhancements, such as the Over-The-Air (OTA) system, which enabled over three million users to update their devices with the latest software and security patches.
- Improved DevOps and operational processes by utilizing Docker and Kubernetes to automate deployment and scaling of the company's applications and services, increasing efficiency and reducing downtime.

Senior Researcher

GALATASARAY UNIVERSITY

Istanbul, Turkey

Jul. 2020 - Apr. 2021

- Collaborated with Dr. Ismail Burak Parlak on research projects focused on computer vision, generative adversarial networks (GANs), and deep learning.
- Designed and implemented the SRGAN deep learning network structure using Python to improve the super-resolution of MRI images.
- Analyzed and processed three-dimensional biomedical images, utilizing deep learning techniques to enhance image quality and resolution.

Data Scientist

Istanbul, Turkey

ZACKAI

Mar. 2019 - Sep. 2020

- Analyzed large-scale datasets with Python, MySQL, Solr, and Redis. Applied statistical and data mining techniques for decision-making.
- Utilized Python and NLP libraries to perform sentiment analysis and entity recognition on Turkish language text data.
- Employed TensorFlow/PyTorch, scikit-learn, and Python to develop predictive models using machine learning and deep learning techniques.
- Built intelligent solutions for clients using IBM Watson services and Python, incorporating natural language understanding and visual recognition.
- Developed web scraping and crawling tools with Selenium and BeautifulSoup to collect data from various sources for analysis.
- Led the development of a sentiment analysis service for Turkish language text data using deep learning frameworks and Python.
- Cleaned text data using manual cleaning, Excel, Bash scripting, and Python to ensure high-quality input for analysis.

Teacher (Part Time)

Istanbul, Turkey

BAHCESEHIR HIGH SCHOOL

Nov. 2018 - Feb. 2019

- Instructed students in algorithmic thinking using the Java programming language, guiding them in the development of efficient and effective problem-solving techniques.
- Taught students the fundamentals of UML (Unified Modelling Language), enabling them to create clear and concise visual representations of software design.
- Taught introductory Java programming, providing students with a solid foundation in programming concepts and best practices.

Skills

Languages: English (Professional Working Proficiency), Turkish (Native)

General: Data Visualization, Statistical Analysis, Data Preparation

Programming Languages: Python, Java, SQL, Bash Scripting, HTML, CSS

Databases / Search Engines: SQL, Redis, Elasticsearch

Operating Systems: Linux-based operating systems, Windows

Research Interests: Machine Learning, Reinforcement Learning, Computer Vision, Natural Language Processing

Papers

- M. Shoaieinaeini, O. Ozturk, and D. Gupta, "Twitter-informed prediction for urban traffic flow using machine learning," in *2022 6th International Conference on Universal Village (UV)*, 2023
- O. Ozturk and A. Ozcan, "Sentiment analysis in turkish using transformer-based deep learning models," in *4th International Conference on Artificial Intelligence and Applied Mathematics in Engineering*. Cham: Springer International Publishing, 2023, pp. 1–15
- O. Ozturk and B. Hangan, "Transfer learning based flat tire detection by using rgb images," in *4th International Conference on Artificial Intelligence and Applied Mathematics in Engineering*. Cham: Springer International Publishing, 2023, pp. 264–273
- O. Ozturk, B. Hangan, and M. Shoaieinaeini, "Utilizing machine learning to predict offshore wind farm power output for european countries," in *2022 11th International Conference on Renewable Energy Research and Application (ICRERA)*, 2022, pp. 611–615
- O. Ozturk and A. Ozcan, "Ideology detection using transformer-based machine learning models," pp. 30–52, 2021
- O. Ozturk, B. Hangan, and O. Eyecioglu, "Detecting snow layer on solar panels using deep learning," in *2021 10th International Conference on Renewable Energy Research and Application (ICRERA)*, 2021, pp. 434–438
- N. Kurt, O. Ozturk, and M. Beken, "Estimation of gas emission values on highways in turkey with machine learning," in *2021 10th International Conference on Renewable Energy Research and Application (ICRERA)*, 2021, pp. 443–446
- A. Şenol Şener, I. F. Ince, H. B. Baydargil, I. Garip, and O. Ozturk, "Deep learning based automatic vertical height adjustment of incorrectly fastened seat belts for driver and passenger safety in fleet vehicles," *Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering*, 2021

Projects

Research Project Website

Wichita State University

TECHS: HTML, CSS, PYTHON FLASK

PROJECT WEBSITE: [HTTPS://FOW-PROJECT-DEMO.VERCEL.APP/](https://fow-project-demo.vercel.app/)

Jun. 2022 - Aug. 2022

DESCRIPTION

Developed a website for the NSF research grant that I was working on as a research assistant with my advisor.

Turkish Sentiment Analysis Service

ZackAI

TECHS: PYTHON, FLASK, BASH SCRIPTING, HTML, CSS

Jun. 2020 - Feb. 2020

DESCRIPTION

This project aims to create a sentiment analysis tool via artificial intelligence for sectors like telecommunication, finance, retail, etc. In this project trained and tested different deep-learning methods. Deployed on Linux systems and led the project. In addition, developed a front-end for sentiment results. As a result, obtained %94 accuracy with the BERT model.

- Managed Linux systems.
- Fine-tuned BERT model for Turkish sentiment analysis.
- Developed different cleaning and pre-process solutions with Python.
- Used Docker for dockerize the sentiment analysis project.
- Deployed trained model with Flask.

Turkish Chatbot

ZackAI

TECHS: PYTHON, SQL, BASH SCRIPING,HTML, CSS, PHP, PERL, SOLR, REDIS

Mar. 2019 - Sep. 2020

DESCRIPTION

This project aims to create a chatbot via artificial intelligence for sectors like telecommunication, finance, retail, etc. Developed different kinds of solutions for the Turkish chatbot. Created layer between the database (MySQL) and panel using Python. Turkish datasets were cleaned, classified for the chatbot, and created monitoring API to monitor the whole system and tools.

- Developed co-reference resolution model for Turkish NLP.
- Developed spell checker with Deep Learning Techniques. Used Tensorflow, Keras etc.
- Developed annotation tool for text annotation and word linking.
- Used Docker to dockerize the NLP Project.