Burakhan Şamlı

AI Specialist - Forensic Informatics Engineer

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github.com/blitzkrieg0000 | https://blitzkrieg0000.github.io/

I am a Forensic Informatics Engineer with a strong interest in image processing, **computer vision**, and GIS-based **remote sensing**, focused on developing practical and scalable AI-driven solutions. My background includes work on biometric and identity-related systems such as **facial recognition** and image-based identification, as well as **object detection**, **segmentation**, and **tracking** tasks. In parallel with computer vision, I actively work with Transformer-based architectures in both vision and **NLP** domains, aiming to stay aligned with current advances in deep learning. I have experience applying these models to tasks such as image enhancement, representation learning, and text-based analysis, and I continuously explore emerging methods and architectures to strengthen my understanding of modern AI systems.

I have also worked on satellite image analysis and GIS-focused projects, particularly involving **multispectral** and **hyperspectral** data for agriculture-oriented applications such as land use and land cover (LULC) analysis. Across my projects, I integrate machine learning models into deployable software systems, working with containerized and **microservice-based** architectures using tools such as **Docker** and **Kubernetes**, and remain motivated to learn, adapt, and contribute to real-world projects where data-driven solutions create measurable impact.

WORK EXPERIENCE

NLP & Transformer Architectures
2025

Hexaops A.Ş. — *Teknokent, Kahramanmaraş*

- Participated in NLP projects, working on system design and planning with technologies involving translation, chatbots, messaging, and distributed systems; additionally contributed to the training and fine-tuning of large language models, as well as voice cloning, TTS, and STT projects.

Remote Sensing & GIS
2024-2025

DGH Arge Yazılım — *ASBÜ Teknokent, Ankara*

- Experience in satellite image analysis and GIS-based workflows using multispectral and hyperspectral data.
- Application of remote sensing techniques to agriculture-oriented projects, including Land Use and Land Cover (LULC) analysis.
- Hands-on experience with platforms and tools such as Sentinel, Landsat, Google Earth Engine, ArcGIS Pro, and EU Copernicus datasets.
- Applied knowledge of satellite image preprocessing, analysis, and interpretation for real-world GIS applications.

NLP & Transformer Architectures
2023-2024

DGH Arge Yazılım — *ASBÜ Teknokent, Ankara*

- Computer Vision Projects
- Practical experience with Transformer-based architectures across both computer vision and natural language processing domains.
- Exposure to text-based analysis, feature representation, and modern deep learning workflows aligned with current advances in Transformer models.

Specialized Research & Advanced Systems
2023 - 2024

DGH Arge Yazılım — *Remote Work, Osmaniye*

- Remote sensing research for environmental and agricultural use cases.
- Real-time sports performance analysis (motion & posture).
- AI training on Huawei Atlas 800 (NPU acceleration).

AI & Computer Vision
2023

DGH Arge Yazılım — *İnönü Teknokent, Malatya*

- Experience in developing AI-based image processing and computer vision applications, including OpenCV-based systems, OCR, image segmentation, object detection and tracking, and dataset preparation and labeling.
- Hands-on work with GAN and Transformer-based image enhancement techniques, including super-resolution and representation learning approaches.
- Development and deployment of real-time AI systems, such as quality control solutions, face recognition and identification platforms, and infrastructure inspection projects, including high-voltage transmission line fault detection.
- Deep learning model development primarily using PyTorch, with experience in inference and serving frameworks such as Triton Inference Server and TorchServe.

Software Engineering & Deployment
2022 - 2023

DGH Arge Yazılım — *İnönü Teknokent, Malatya*

- Web application development using ASP.NET Core/Angular, with a focus on backend-oriented system design.
- Design and implementation of microservice-based architectures for scalable software systems.
- Experience with Docker, Kubernetes, and Proxmox.
- CI/CD pipelines using GitHub Actions, GHCR, ArgoCD, and Ansible.
- Real-time data processing with Kafka, Redis, and RTMP.
- Monitoring with Prometheus and Grafana.

Forensic Informatics Engineering Intern - |
2021-2022

DGH Arge Yazılım — *İnönü Teknokent, Malatya*

- Participation in AI-based software development and real-time web integration projects.

Forensic Informatics Engineering Intern - ||
2020

Telehouse İstanbul - Teknotel — *Kozyatağı, Kadıköy/İstanbul*

- Web application development and network-IT management were carried out.

AREAS OF EXPERTISE

- AI/ML Project Infrastructure Modeling
- Machine Learning & Deep Learning
- Computer Vision (CV)
- Natural Language Processing (NLP)
- Distributed Systems & DevOps
- Data Science & Statistics
- Remote Sensing & Geospatial Analysis
- Software Development & System Design

TECHNICAL SKILLS

Docker, Kubernetes, Python, Terraform, ESRI ArcGis-Pro, Github-Workflows, ArgoCD, PyTorch, Transformers, TensorFlow, Scikit-learn, Pandas, Numpy, Matplotlib, Seaborn, Cassandra, PostgresQL, Confluent Kafka, Rook-Ceph, Milvus, FastAPI, OpenCV, Ray, Git, Rastervision, Mediapipe, gRPC, Protobuf, LangChain, OnnxRuntime, Sockets, Linux, Redis, Prometheus, Grafana, Ansible

PROJECTS

Data Protection By Blockchain

- Software project that aims to make a set of steps for data processing immutable and consistent by using a blockchain structure.

LANGUAGE

English-Turkish

"I continue my work by expressing it in my own language, while adhering to the original language's terminology logic, and I am reaping the benefits of this approach."

EDUCATION

Fırat University

Bachelor of Science in Forensic Informatics Engineering

2017 - 2021 - [Intern 2022]

GNO: 3.73 / 4