# BARAA RAYED

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#### PROFESSIONAL SUMMARY

Experienced DevOps/MLOps Engineer proficient in building CI/CD pipelines, managing AWS/Azure cloud infrastructure, and automating with Terraform. Adept at deploying AI/ML models using Docker and Kubernetes, ensuring scalable and reliable workflows for high-performance systems.

#### TECHNICAL SKILLS

- **♥** Cloud Platforms: AWS, Azure
- ✓ DevOps Tools: Docker, Kubernetes, Terraform, Git, Route 53, Elasticsearch, Kibana
- **▼ CI/CD**: GitHub Actions, Jenkins, GitLab, AWS Pipeline
- ✓ Monitoring: New Relic, Grafana, ELK Stack
- ✔ Programming: Python, Bash, Ruby, PowerShell, C
- ✓ Frameworks: TensorFlow, PyTorch, OpenCV, Scikit-Learn
- ✔ Databases: MySQL, PostgreSQL, MongoDB, Redis
- **⊘** Web Servers: Nginx, Apache
- Security: IAM, WAF, VPC, CloudFront
- Operating Systems: Linux (Ubuntu, CentOS, RHEL), Windows

### WORK EXPERIENCE

#### **DevOps Engineer**

MedexSepeti, Istanbul, Türkiye

Apr 2023 – Present

- Designed and implemented CI/CD pipelines using GitHub Actions for seamless zero-downtime deployments.
- Managed and scaled AWS infrastructure across 5 accounts, hosting 17+ EC2 instances with Auto Scaling Groups (ASG) for high availability and fault tolerance, supporting applications with over 6 million visits per month.
- Enhanced **Nginx** configurations for high-traffic production and staging environments.
- Deployed full-stack applications (Next.js, React, Laravel) with high availability.
- Strengthened security using AWS WAF, IAM, and CloudFront.
- Automated infrastructure with Terraform and monitored systems via New Relic.
- Deployed SaaS applications across multiple regions using AWS services.
- Implemented automated S3 configuration backups to ensure data integrity and disaster recovery.

### Deep Learning Researcher

Jan 2023 - May 2024

Desk, Remote (Germany)

- Developed **object tracking** systems using **YOLOv8** on RGB and thermal feeds.
- Integrated **DeepSORT** for real-time person tracking in surveillance applications.
- Automated the deployment pipeline for ML models using CI/CD tools (e.g., GitHub Actions), reducing deployment time by 65% and improving reproducibility.
- Containerized ML models with Docker for efficient scaling and deployment.
- Automated deployment pipelines with GitHub Actions and monitored using New Relic.
- Optimized and fine-tuned LLMs on dedicated physical GPU servers for inference and training.

### **PROJECTS**

### ML Flask Application

2023

GitHub-Link

• Deployed a Flask-based **ML model** on **AWS EC2** (Amazon Linux) with manual and automated deployment pipelines.

### ECG Arrhythmia Classification

2023

GitHub-Link

• Built a classification model to identify 7 types of heart arrhythmias using ECG spectrograms.

### 2D Hippocampus Segmentation

2022 - 2023

GitHub-Link

• Developed an automated **U-Net** segmentation model for hippocampus region detection in MRI scans

#### RESEARCH EXPERIENCE

### Research Assistant

Sep 2023 - Present

Istanbul University-Cerrahpaa, Türkiye

- Designed scalable **pipelines** for multi-output deep learning tasks in medical imaging.
- Supported infrastructure for **LLM deployment** in a brain visualization platform.

#### Research Assistant

Sep 2019 - Jun 2023

Tekirda Namk Kemal University, Türkiye

• Developed a **U-Net model** for hippocampus segmentation in MRI data.

#### **EDUCATION**

# M.Sc. Computational Neuroscience and Biomedical

Sep 2023 – Present

Istanbul University-Cerrahpaa, Istanbul, Türkiye

- Thesis: Leveraging LLMs and 3D brain simulations for diagnostic support.
- Awarded Full Academic Scholarship for academic excellence.

# B.Sc. Computer & Biomedical Engineering

Sep 2019 – Jun 2023

Tekirda Namk Kemal University, Tekirda, Türkiye

• Graduated First in Class with a  $\mathbf{GPA}$  of 3.70/4.00.

## **LANGUAGES**

Arabic (Native), English (Fluent), Turkish (Advanced), French (Beginner)