

# Taygun Bulmus

DEVOPS ENGINEER, PHD

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## Objective

**DevOps Engineer with a PhD in Computational Physics**, specializing in the automation and optimization of infrastructure for seamless, scalable application deployment. Expertise in HA Kubernetes orchestration, CI/CD pipelines (Azure Pipelines, ArgoCD), and Helm chart management. Experienced in containerization, monitoring, and alerting (Grafana/Prometheus), as well as deployment tools. Recognized for exceptional problem-solving skills and the ability to quickly adapt to complex technical challenges.

## Skills

**Kubernetes, Helm, Git, Docker, Grafana (LGTM), Prometheus, Open Telemetry, Argocd, Azure DevOps, Ansible, ...**  
**Python, Shell, Tex, Matlab, C++, Fortran.**

## Work Experience

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DEVOPS ENGINEER

*Istanbul, Turkey*

*Mar. 2023 - Present*

- Transitioned from freelance to a full-time employee in October 2024,
- Managing and maintain 10+ HA Kubernetes clusters and 500+ pods with 99.9% uptime,
- Planning sprint tasks, documenting wiki pages, and presenting weekly reports to the teams,
- Improved code deployment efficiency by automating processes with CI (Azure) / CD (Argocd) pipelines,
- Creating multi-tenant observability architecture and dashboards for monitoring/alerting,
- Managed, backed up, and optimized Minio, MongoDB and PostgreSQL, ensuring high availability and data integrity,
- Automated manual tasks through scripting languages using python/shell/Ansible.

### Mimar Sinan FA University

RESEARCH ASSISTANT

*Istanbul, Turkey*

*May. 2017 - Oct. 2024*

- Teaching Computational Physics With Python

### GSI Helmholtz Centre for Heavy Ion Research

VISITING RESEARCHER

*Darmstadt, Germany*

*Oct. 2018 - Mar. 2019*

- Used python/fortran to model neutrino nucleosynthesis network calculations on HPC,
- Generated massive nuclei production data and performed analysis to compare them with Solar System abundance.

## Education

Jun. 2022 **Doctor of Philosophy in Physics**, Mimar Sinan FA University, Istanbul, Turkey

Jun. 2015 **Master of Science in Physics**, Mimar Sinan FA University, Istanbul, Turkey

Jun. 2012 **Bachelor of Science in Applied Physics**, Istanbul Technical University, Istanbul, Turkey

## Projects

2023 - 2025 **myk8s: Personal Dev K8s, Github**, Project Owner

2022 - 2024 **Computational Methods Lecture Notes, Github**, Project Owner

2015 - 2021 **collNu: Python code for neutrino flavor transformation, Github**, Project Owner

2020 - 2020 **High Performance Computing of Supernova - GSI/FAIR**, Executive (cancelled due to pandemic)

2018 - 2019 **Nucleosynthesis in Core-Collapse Supernova - TÜBİTAK**, Executive

## Certificates

Jan. 2024 **Cilium LB-IPAM & L2**, Isovalent

Feb. 2023 **Observability Fundamentals**, Elasticsearch

## Publications

Aug 2022 **Spin-Flavor Precession Phase Effects in Supernova**, T. Bulmus, Y. Pehlivan

*CJoP*

Sep 2017 **Astrophysical Neutrinos and Flavor Evolution With Self Interaction**, T. Bulmus, Y. Pehlivan

*JPS Conf. Proc.*