

# Muhammed Sertkaya

System Administrator  
Cyber Security  
Analyst

**Muhammed Sertkaya**

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## Abstract

I can overcome difficult problems and find economical solutions. I am always open to new software and ideas. I believe in the importance of teamwork rather than individual success.

I don't give up easily, I can't sleep without finding a solution.

I managed the Learning Management system (LMS) for more than 2 years.

I provided support to more than 20 different companies regarding server, network and information security.

I set up and managed servers with 99% uptime

Python, Bash Script, Go, js, C++, C#, Java are the programming languages I mainly use.

**I do not need a visa to work in the EU. I have a Bulgarian passport. I can start working immediately**

## Summary

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I have managed many different systems and solutions. Some of these;

- Hospital information management system
- University Information management system
- Business Information management system
- Media Archive management system
- Learning management systems

I have experience in Docker Container, Web API, automation scripts (Ansible), binary code debugging, Malware Analysis.

I usually used **Veeam backup** for **backup** and sometimes wrote my own scripts.

My preference for **virtualization** is to use **VMware** solutions. I had the opportunity to experience solutions such as Hyper-V, KVM, XEN.

I used Fortinet and Palo Alto as **firewalls**. I used pfSense as open source

As a **storage** solution, I used products of IBM, Dell, HP and Sun brands. I have experience in storage solutions such as SAN and vSAN

I have experience in creating VLANs, STP Configuration, Loop deduction, IP Routing and Port monitoring for Cisco, HP, Zyxel and Juniper brands.

I have knowledge of EC2, Route 53, VPC on AWS and I used Gcloud VM.

I took Cyber Security, Application Debugging, Exploit Development, Windows Internals, Android Internals, Web Security lessons

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## Experience

### **2M Kurumsal / System Administrator**

JAN 2023 - Currently Izmir, TURKEY

I created solutions to customers' problems. I made system designs and installations. I used VMware, Windows Server 2019, Ubuntu, Red Hat, Oracle VM, Veeam Backup.

### **Atik Uitzendbureau / Order Picker**

OCTOBER 2022 - JAN 2023, Roosendaal NETHERLANDS

Worked in Etten-Laur Lidl Warehouse

### **Dokuz Eylul University / System Administrator**

JUNE 2022 - SEPTEMBER 2022, Izmir, TURKEY

I am managing VMware ESXI servers. Most of the servers have the Linux Ubuntu operating system, but there are also windows servers. Consists of around 50 physical servers and 200 virtual machines. I'm load balancing using haproxy on web servers. I have installed Sun ZFS storage. JBOD cabling, Controller Cluster, Sharing disk space with FC.

### **4US BILISIM Company / Penetration Tester and System Engineer**

SEPTEMBER 2020 - MAY 2022, Istanbul, TURKEY

I made reports on cyber security vulnerabilities by conducting tests on cyber security for our customers. I was informed about the solutions and what needs to be done.

### **KOBIZON PROJECT CONSULTANCY LIMITED COMPANY /**

Embedded Development Trainer

NOVEMBER 2019 - FEBRUARY 2020, Zonguldak, TURKEY

I taught high school students programming on Arduino and ESP8266 with C++ programming language.

### **BG-TEK / Intern**

JUNE 2019 - AUGUST 2019, BURSA, TURKEY

I worked on embedded firewall software developments. I developed bash scripts for freebsd operating system based software on a mini

pc with amd processor.

## Project

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### Virtualization of The Existing Hospital Structure 2023

In the current structure, a separate server was used for 12 services. I converted this structure to a failover structure on 3 servers. First, I installed the VMware Cluster structure. I created vSAN. Then, I ran the images I took from the physical servers on the cluster as a virtual machine

### Media Control System Room Live Migration 2023

In the company we serve, physical servers had to be moved without shutting down the virtual machines. I ran my tests on the servers and checked whether there was anything preventing this. I led the technical team to establish the network infrastructure. I configured the switches. I ran my connection and speed tests. I managed to move 6 servers one by one in a controlled manner using the vSAN "Ensure accessibility" method.

### Learning Managment System 2020-2022

I installed the open source Sakai and bigbluebutton software, which were deemed appropriate by the decision of our Technical Manager, on the servers. These software were not working properly for many users. I made optimizations and tests in the software. I divided the software into nodes in the background and ensured session continuity. I made improvements in the infrastructure due to bottlenecks in the network infrastructure. By making changes on the web server, I enabled it to perform speed-requiring tasks on RAM instead of disk. As a result, I created a system with a capacity of 60,000 requests per second.

### Bigbluebutton Download Plugin 2022

I developed a plugin through which students and academics can download course recordings. Since screen sharing, Webcam and sounds are separate resources, combining them on the server will increase resource consumption, so I took care to do this work on the client side. It runs as a Docker container.

### Honeypot Software 2021

At the company I worked for, they needed software to analyze cyber attacks from guest networks. So, I decided to write an SMB Honeypot by looking at examples on the internet. I wrote a code that includes sample attack patterns. The code I wrote sends a notification to Zabbix when a request is sent in the relevant pattern. It gives 85% accurate results.

## Education

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### Zonguldak Bulent Ecevit University / 2,94/4

2017 - 2021, Zonguldak, TURKEY

Computer Engineering Bachelor's Degree

I formed a CTF team in college. We participated in CTF competitions. We were awarded 2nd place in the Cyber Anadolia competition held in Turkey. I completed 6th place in the SANS Cyber Fast 2020 competition that I participated in individually.

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## Languages

Turkish - Native

English - B1

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## Hobbys

Play chess, play piano, ride a bicycle and walking with dog