

A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front one is blue and the back one is a light greenish-blue. They are positioned diagonally, with the blue one partially covering the green one.

# Building & Protecting a Web Application with Microsoft Azure

Zak Ahmed



# Overview

- Using Microsoft Azure Portal Services, I built a cloud-based web application that contained my cybersecurity blog
- Using Microsoft Azure's services and cloud shell, I created an Azure free domain and built an SSL certificate
- The web application was secured under a Resource Group that contained a Network Security Group, Load Balancer, Virtual Machines, and a Jump Box Provisioner



# DNS Lookup

```
zakah@DESKTOP-BEGTGH9 MINGW64 ~
```

```
$ nslookup -type=A zaksecurityresume2.azurewebsites.net
```

```
Server:   cdns01.comcast.net
```

```
Address:  2001:558:feed::1
```

```
Non-authoritative answer:
```

```
Name:     waws-prod-blu-405-65c7.eastus.cloudapp.azure.com
```

```
Address:  20.119.8.28
```

```
Aliases:  zaksecurityresume2.azurewebsites.net
```

```
          waws-prod-blu-405.sip.azurewebsites.windows.net
```


# Azure Front Door

## Azure Front Door ...





Microsoft Azure



### Azure Front Door

Azure Front Door is a modern cloud CDN service that provides high performance, scalability, and secure experiences for your content, files and global applications. It combines modern CDN technology and intelligent threat protection in a tightly integrated service that's easy to set up, deploy, and manage. Use Front Door with Azure services including App Service, Static Web App, Storage, API Management, Application Gateway, Azure Kubernetes Service, Azure Container Apps, and virtual machines—or combine it with on-premises services for hybrid deployments and smooth cloud migration. [Learn more](#) 

✓ Azure Front Door is enabled for your web app. Configure your Front Door at the link below. To remove Front Door from this web app, you must remove app service from the Front Door's origins or the classic Front Door's backend.

Name 	Type 	Endpoint name 	Origin group name 
<a href="#">project1-FrontDoor</a>	Azure Front Door Premium	Project1-FD-ftgqahg8fkgbgucq.z01....	Red-Team


Add

Close



# Web Application Firewall

 Save  Discard  Refresh

 There are pending changes, click 'Save' to apply.

Configure a policy with custom-authored rules. Once a rule is matched, the corresponding action defined in the rule is applied to the request. Once such a match is processed, rules with lower priorities are not processed further. A smaller integer value for a rule denotes a higher priority. [Learn more](#) 

 Add custom rule

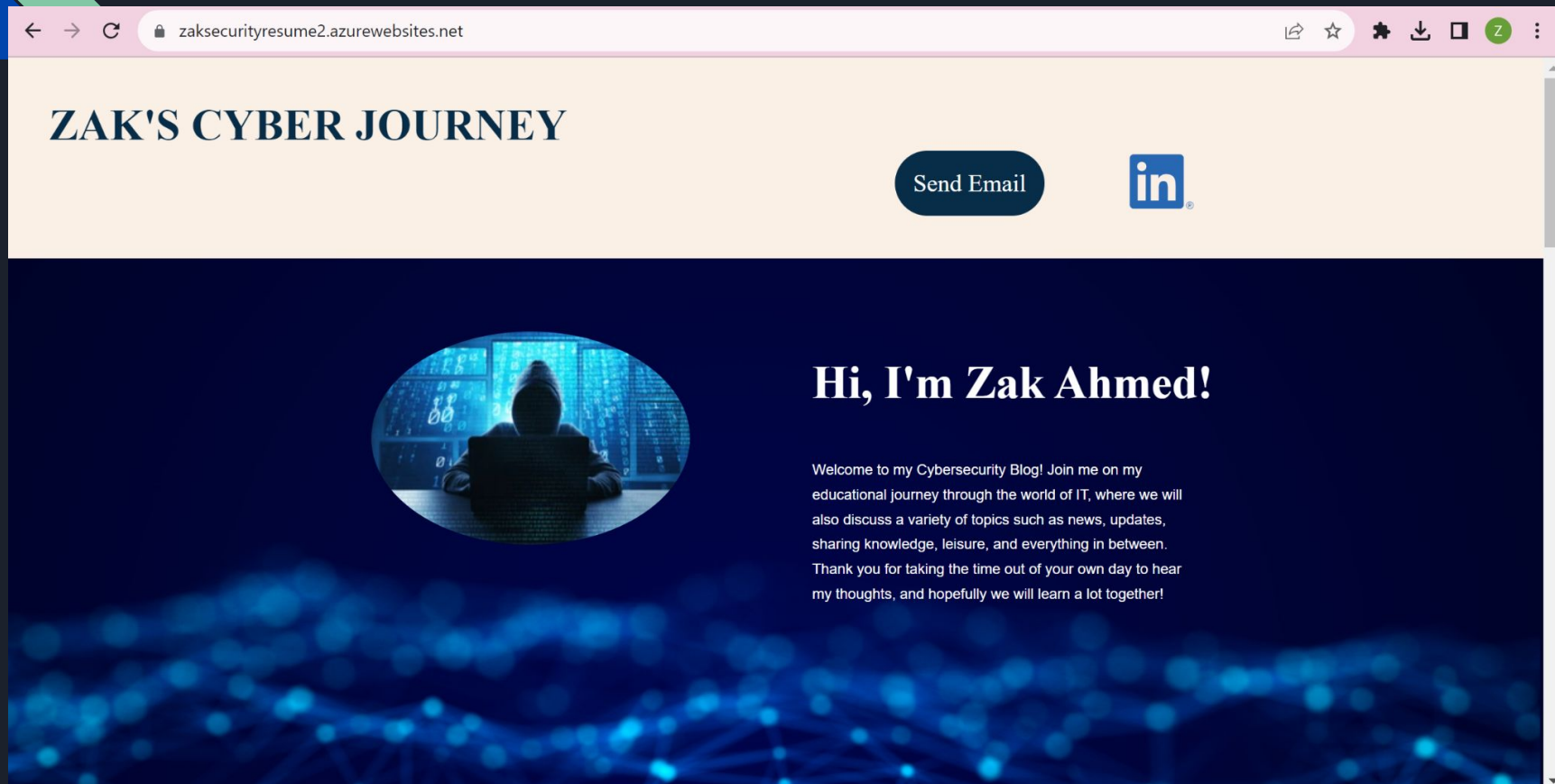
Priority	Name	Rule type	Action	Status
100	Project1rule	Match	 Block	 Enabled



# HTML & CSS Codes

- [https://docs.google.com/document/d/1itfvze\\_gGbpXL-aP8nkenMWVENImUtEp8GdSjnD2GzY/edit?usp=sharing](https://docs.google.com/document/d/1itfvze_gGbpXL-aP8nkenMWVENImUtEp8GdSjnD2GzY/edit?usp=sharing)
- [https://docs.google.com/document/d/10ot\\_dF4RYNF\\_Kh9jLvY\\_N\\_4HWZeBM6f3pvl2na2UGDOo/edit?usp=sharing](https://docs.google.com/document/d/10ot_dF4RYNF_Kh9jLvY_N_4HWZeBM6f3pvl2na2UGDOo/edit?usp=sharing)

# Web Application Front End



# Web Application Front End

## Blog Posts



### **Are Humans the Weakest Link in Security?**

people, security risks, cybersecurity, phishing, business objectives

The idea of whether people are the weakest link in security has been discussed since the early times of socioeconomic development. Before the evolution of the internet and its pivotal role that it plays in our every day lives, the issue of security in every form has been very prevalent along with ways to combat a variety of threats. These issues persisted amongst people involved in business, politics & governance, manufacturing & merchandising, and in the private lives of every day people. Since the creation of the Internet and its evolution, the question of security has only increased. While analyzing various forms of cyberthreats and the sources they come from, one must analyze the target(s) and the vulnerabilities that are in association. While the machines and operating systems we run for our business and private solutions are man-made and have their own particular vulnerabilities, there are also protocols and practices set in place to mitigate such issues. However, the factor of human error must always be considered, as it is quite inevitable. The exposure of private networks and systems is quite often the result of



# Web Application Front End

negligence, ignorance, phishing scams, malware that is uploaded in the system (even if it is accidental), and overall people not being aware of the cyberthreats and risks that surround them. Often times we are negligent of the data that we carry in our mobile devices and on our hard drives, and the dangers of their exposure. Systems and networks can be configured and have protocols in place to mitigate and prevent attacks. However, people are very prone to making mistakes and not being aware of the threat actors that are nearby, or from afar. In order for people to understand the depth of cybersecurity and its importance, they do need to take time to educate themselves in proper practices as well as how to reduce risk exposure and to protect the integrity of all sorts of data.



## The Emergence of Cloud

cloud services, software, cloud technology, resources, security, software-based

As I am beginning my journey in the world of IT, one area in particular catches my eye quite a bit more than all of amazing and wonderful things the world of technology has to offer. I have been told that Cloud Technologies are the way of the future in technology, if you will. The emergence of hardware technologies being ran by software has created lots of opportunities for businesses and private citizens alike who are sharing their resources, services, and daily lives/operations with

# Web Application Front End



As I am beginning my journey in the world of IT, one area in particular catches my eye quite a bit more than all of amazing and wonderful things the world of technology has to offer. I have been told that Cloud Technologies are the way of the future in technology, if you will. The emergence of hardware technologies being ran by software has created lots of opportunities for businesses and private citizens alike who are sharing their resources, services, and daily lives/operations with clients and fellow people. Businesses have the opportunity to expand their operations and improve the quality of their respective operations. People are able to access a variety of platforms and services in every type of industry, and pursue their passions with ease and without worry of complications or limitations of hardware, physical attributes, or even geography. The implementation of cloud services in the world of technology has provided people with opportunities to grow, save on costs, share their ideas/work, and mitigate technological issues and shortcomings with ease. Understanding how cloud services work has led me to realize that it is essentially a comprehensive combination of all aspects in networking and in security. Creating and deploying cloud based software and services takes quite a bit of configuration and consideration of the security risks and rules that must be put in practice. Beyond the networking aspects of creating your cloud service, one must always consider the security infrastructure being deployed. Cloud allows us to consider a variety of aspects and questions regarding protecting the network, creating a seamless service, and how to make this technology as user-friendly as possible. I believe the implementation of cloud services in the world of technology will only grow, and I think it is very interesting and important to learn about these services, the infrastructure, and how it will impact and benefit the world of IT as well as the world around us.