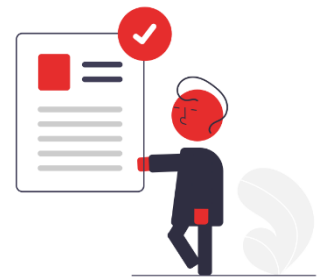


Enoch Masih Portfolio

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About me

I am a recent graduate from Northern Essex Community College, and I am looking for my next challenge. My focus has been in networks and managing Microsoft servers. I have extensive knowledge about Apple products. I am knowledgeable in Python as well as Linux. Technical Documentation is one of my strong points and I love to learn and teach along the way.

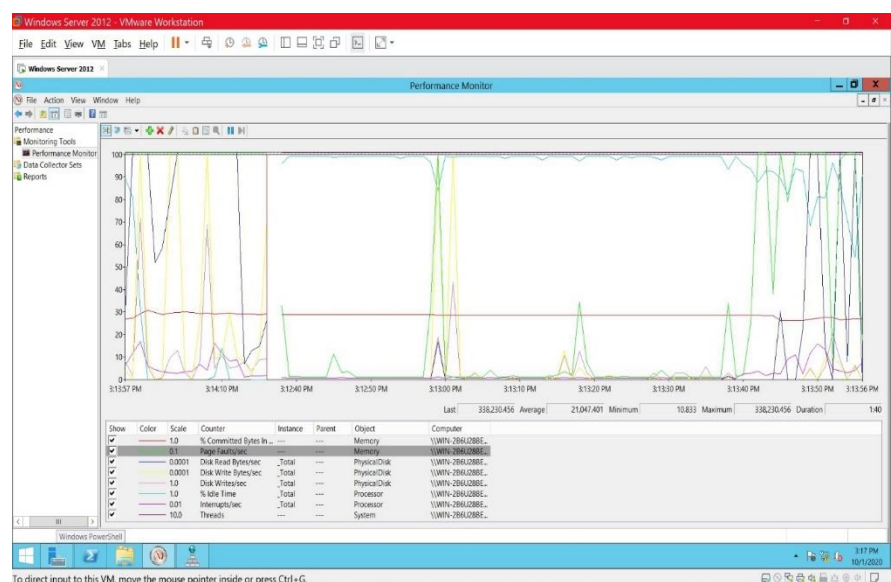


Let's Talk details

Learning is an on-going process. It is good to take a pause and appreciate how far you've come. These are some of my professional achievements.

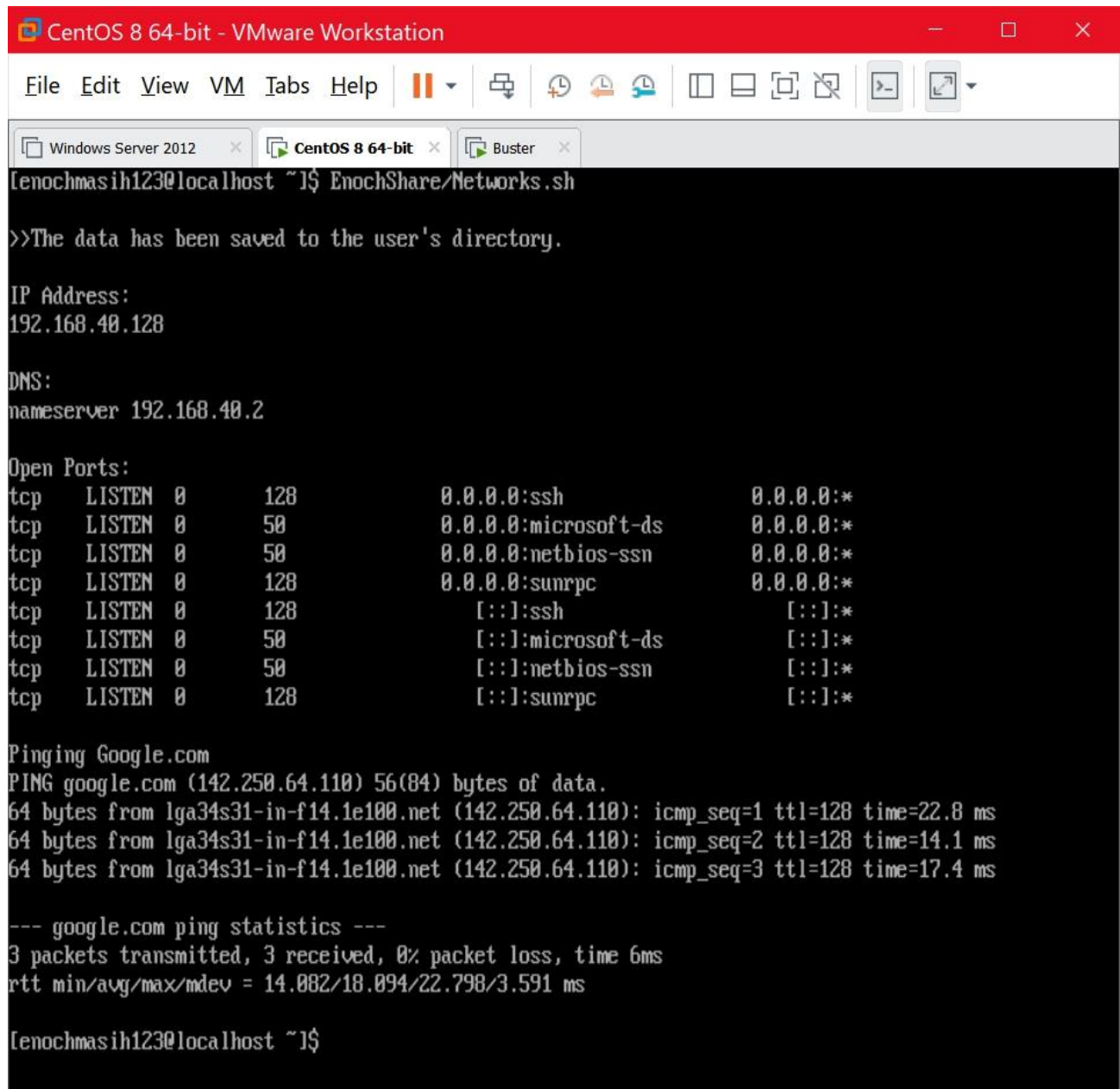
Networks

I have experience on Windows Servers, managing accounts and groups using Active Directory, as well as solving networking issues. The following is a performance monitor application running in Windows server. We can use tools such as these to diagnose issues as well as monitor the health of servers.



Programming

I see programming as an exciting challenge. Automating tasks using Linux scripts or creating an educational program in python; These are all things that I love doing. I wrote the following script for multiple Linux distribution systems. This can be helpful in identifying open ports and diagnosing network related issues.



```
CentOS 8 64-bit - VMware Workstation
File Edit View VM Tabs Help
Windows Server 2012 x CentOS 8 64-bit x Buster x
[enochmasih123@localhost ~]$ EnochShare/Networks.sh
>>The data has been saved to the user's directory.
IP Address:
192.168.40.128
DNS:
nameserver 192.168.40.2
Open Ports:
tcp LISTEN 0 128 0.0.0.0:ssh 0.0.0.0:*
tcp LISTEN 0 50 0.0.0.0:microsoft-ds 0.0.0.0:*
tcp LISTEN 0 50 0.0.0.0:netbios-ssn 0.0.0.0:*
tcp LISTEN 0 128 0.0.0.0:sunrpc 0.0.0.0:*
tcp LISTEN 0 128 [::]:ssh [::]:*
tcp LISTEN 0 50 [::]:microsoft-ds [::]:*
tcp LISTEN 0 50 [::]:netbios-ssn [::]:*
tcp LISTEN 0 128 [::]:sunrpc [::]:*
Pinging Google.com
PING google.com (142.250.64.110) 56(84) bytes of data.
64 bytes from lga34s31-in-f14.1e100.net (142.250.64.110): icmp_seq=1 ttl=128 time=22.8 ms
64 bytes from lga34s31-in-f14.1e100.net (142.250.64.110): icmp_seq=2 ttl=128 time=14.1 ms
64 bytes from lga34s31-in-f14.1e100.net (142.250.64.110): icmp_seq=3 ttl=128 time=17.4 ms
--- google.com ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 6ms
rtt min/avg/max/mdev = 14.082/18.094/22.798/3.591 ms
[enochmasih123@localhost ~]$
```

Another project I created was an educational banking application designed to educate on good financial habits. This program not only created a small banking environment but also simulated paying loans and educated the user with curated advice on the importance of interest. I believe technology can be a powerful tool when used for good to educate others. I programmed this in python with complete documentation including flowcharts and instructions.

```
Masih_Bank.py
1 #Author: Enoch Masih
2 #Name of program: Masih Bank
3 #Last Updated: 4/24/2020
4 #Pupose of program: Simulated banking to teach about better banking habits.
5
6 #Function
7 def login(): #Welcomes and prompts user to login or sign-up
8     selection = input("\n~ Welcome to Masih Bank ~\nType the number associated with the option and press Enter to select that option.\n1. Create a new account\n2. Login\n>>>")
9     if selection == "1":# when user types "1" they are taken to create_login function which creates a login
10         create_login()
11     elif selection == "2": # when user types "2" they are taken to search_account function which searches for their account
12         search_account()
13     elif selection != "1" or "2": # if user enters anything other than "1" or "2" the function prompts and begins again and gives them another chance.
14         print("\n>>>Invalid Entry.<<<\nPlease try again.")
15         login()
16
17 def last_account(): #Returns the count of the last account in the ledger.txt. This lets the program know the amount of accounts documented in ledger.txt.
18     f = open("ledger.txt", "r")
19     for i in f: #This loop passes each line so it ends at the bottom line of the ledger.txt file.
20         pass
21     last_sequence = f.find(":")#Now that its on the bottom line it reads the data. data is separated by ":"
22     last_sequence = i[:last_sequence] #Everything before the first ":" indicates a sequence number used to count until the next ":"
23     f.close()
24     return int(last_sequence)#the function returns this last sequence number so the program knows the count on the ledger
25
26 def create_login():#This function creates a new account. This function also checks that the username is unique to the individual, but not password.
27     new_user = input("\nlets get started on your new account!\nRemember username and password are Case-Sensitive.\nPlease make your credentials unique.\nType in a username.\n>>>")#Small
28     account_num = 0 #A new variable created used for the program to count with respect to the ledger.
29     username = "admin" #A new variable declared to compare user input to data existing in the ledger.
30     while username != new_user: #This loop checks if the username entered is present in the current ledger. If it is not present, Program proceeds.
31         if account_num > last_account():#If the program's counter(account_num) is greater than the count of the ledger (last_account) than it has been validated that the username is uni
32             password = input("Type in a password.\n>>>")#User types in password, and reminded to keep a copy.
33             f = open("ledger.txt", "a")#This time the file is opened in a amending mode to add to the file.
34             f.write((str(int(last_account()+1)) + ":" + new_user + ":" + password + ":" + str(0.00) + ":" + str(0.00) + "\n")#Consolidates information gathered from the ledger and the
35             f.close()#Program opens and closes file when purpose completed to save memory.
```

Security

Security in any environment should be prioritized. I have created several scripts and technical documentations about various aspect of security. I have created guides on implementing Firewalls on Linux servers. I have created system monitoring scripts that provide up to date information about the system health such as network output, disk data, and server processes. The following screenshot is the output of another security script that I created which can be set up as a Cron job. It will save a daily report as a text file showing any failed logins, any off-hour activity (in a company environment) and lastly checks for directory integrity using hash.

```

lenochmasih123@localhost ~1$ cat /home/Security/11-29-2020Log.txt

Daily Report
=====
Failed Login
=====

btmtp begins Tue Nov 24 23:55:37 2020

=====
Off-Hour Login (20:00-06:00)
=====

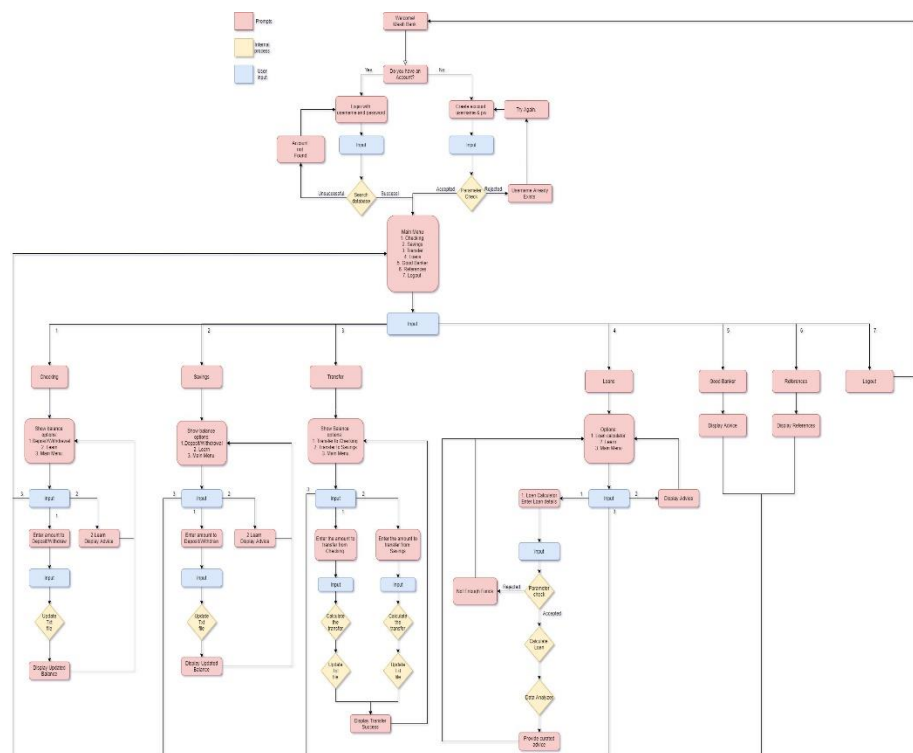
wtmtp begins Wed Sep 9 22:24:43 2020

=====
File Integrity
=====
/var/log/messages: OK
.bashrc: OK
lenochmasih123@localhost ~1$ _

```

Technical Documentation

From working in the healthcare profession to tutoring Computer Science students; I have learned the importance of documenting every step of the way. I have created programming-based flow charts and technical documentation on installing various distributions of Linux servers. The following is a screenshot of a step-by-step guide that I have written on implementing containers such as Docker and Kubernetes on Linux servers.



The last step is to enable it using the systemctl command as follows

```
CentOS 8 64-bit x
[root@localhost enochmasih123]# systemctl enable --now kubelet
Created symlink /etc/systemd/system/multi-user.target.wants/kubelet.service → /usr/lib/systemd/system/kubelet.service.
[root@localhost enochmasih123]#
```

Installing Kubernetes on Debian

I ran into some errors when installing Kubernetes on CentOS and hope to not repeat the same mistakes here. I followed the official guide using the latest software to do the install. The first step is to setup the repository as well as do some house-cleaning by doing apt-get update.

```
Buster - VMWare Workstation
File Edit View VM Help
root@EnochDebian:/home/enochmasih123# sudo apt-get update && sudo apt-get install -y apt-transport-https curl
Hit:1 http://deb.debian.org/debian buster InRelease
Hit:2 https://download.docker.com/linux/debian buster InRelease
Hit:3 http://deb.debian.org/debian buster-updates InRelease
0% [Working] | sudo apt-key add -
Get:4 http://security.debian.org/debian-security buster/updates InRelease [65.4 kB]
0% [Working]es.list/etc/apt/sources.list.d/kubernetes-xenial main
Reading package lists... Done
E: Release file for http://security.debian.org/debian-security/dists/buster/updates/InRelease is not valid yet (invalid for another 18min 0s). Updates for this repository will not be applied.
```

Internship

In my last year of college, I had the opportunity to be part of an internship program offered from my college. This was incredibly beneficial in my growth. I got the opportunity to present at a Massachusetts State Conference regarding utilizing Open Education Resources, I led workshops educating college faculty on academic technologies, and solved day to day technical issues utilizing a ticketing system. I adapted and learned to approach technical challenges in an unconventional method especially during the 2020 pandemic. It gave me real-world experience in my field, and I enjoyed every part of it.



The Proof is in the GitHub

Here is a [link](#) to my GitHub.

There, you will find all my accomplishments listed above. I am proudest of my programming in python as it was challenging but also truly rewarding. I have learned to manage my time. I know the importance of punctuality and maintaining a healthy work-life balance. In the future, I am open to new experiences and challenges. So, send me an email or give me a call, I look forward to meeting you.