

Karim Kabbara

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Parker, Colorado • (720) 440-0122

EDUCATION & CERTIFICATIONS

Bachelor of Science in Computer Science

University of Colorado Denver

CompTIA Security+ (SY0-601)

Cisco Certified Network Associate (CCNA 200-301)

May 2023

GPA: 3.56/4.00

June 2023

July 2023

SKILLS

Skills: Cisco IOS CLI (Switches, Routers), Python, Bash scripting, C++, Java, MySQL, Linux (Kali, Ubuntu, IOS), Socket Programming, Amazon Web Services, Google Cloud Platform, Web Development.

PROJECTS

Network Simulator

- Designed a network simulator to create network topologies, featuring devices like PCs, routers, and switches.
- Developed a command line for configuring IP addresses, VLANs, access/trunk ports, default gateways, and more.
- Simulated the process of ICMP pings, including the ARP learning process and dynamic MAC address learning.
- Defined PDUs for OSI layers 2, 3 and 4, including encapsulation and de-encapsulation at each layer.

Brady Public Humanities Archive (Visit: bradyhumanities.org/)

- Collaborated with a 3-person team to develop a digital archive for worldwide humanities projects.
- Technologies include AWS LightSail, RDS for the MySQL database, Nginx paired with Gunicorn, and Django.
- User Features include project & glossary submission, project pages, and an interactive map using the MapBox API.
- Admin Features include project & glossary verification process, featuring projects, and glossary management.

Port Scanner Detector

- Wrote a Python script that detects port scanners to prevent unauthorized machines from scanning a network.
- Analyzes network traffic by using a listening socket to capture packets traveling through the network.
- Inspected layers 2, 3, and 4 PDUs to extract information such as IPs, MAC addresses, and port numbers.
- Identified excessive scans over a time interval using unique IP, MAC address, and port number combinations.

Directory Manager

- Developed a directory system for organizing employee access by assigning users to position-specific directories.
- Admin functionality includes directory creation, setting permissions, and adding/removing users from directories.
- User functionality includes log in, directory selection, and file creation/modification based on permissions.
- Written in C++ using the Qt framework to handle the GUIs and PostgreSQL to store user and directory information.

PROFESSIONAL EXPERIENCE

University of Colorado Denver

Denver, CO

Cybersecurity Course Developer (Temporary Position)

January 2023 – May 2023

- Worked closely with a professor from the Computer Science department at CU Denver to develop two classes, Computer Security, and Secure Networking & Programming, for the new Cybersecurity major.
- Development included creating labs and homework assignments that introduced students to the fundamentals of each topic and researching and gathering textbooks that align with the topics of each class.
- Topics included an introduction to penetration testing, SQL injections, cloud VM setup using Google Cloud Platform, packet capture and analysis with Wireshark, hashing and cryptography, as well as input validation and sanitization.

Target

Parker, CO

Fulfillment Expert

October 2020 – May 2023

- Responsible for picking products around the store and bagging them to be handed over to customers.
- Shipped over 500 boxes of products daily to customer homes in collaboration with UPS and FedEx.

Best Buy

Parker, CO

Sales Expert

February 2019 – August 2020

- Provided in-depth solutions and recommendations by asking clients open-ended questions to understand their needs.
- Solutions included computers, tablets, home theater setups, and associated peripherals. (Soundbars, printers, etc.)
- Assisted clients with products they already owned by troubleshooting the cause of the problem and finding a solution.