Karim Kabbara

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EDUCATION & CERTIFICATIONS

Bachelor of Science in Computer Science	**May 2023**
University of Colorado Denver	*GPA: 3.56/4.00*
Cisco Certified Network Associate (CCNA 200-301)	**July 2023**
CompTIA Security+ (SY0-601)	**June 2023**

EXPERIENCE

Software / Embedded Firmware Engineer   **September 2023 - Present**
Geotech Environmental Equipment, Inc.   *Denver, CO*

- Develop the Geotech website using Python and Angular JS to provide customers with real-time access to critical system information, graphical representations of data point trends, IO states, and overall system health.
- Led the revamping of the Geotech customer website by redesigning the UI that displays all system information and the remote-control commands, leading to a better user experience and clearer breakdown of the entire system.
- Utilize JavaScript (Node.js) to program embedded systems that read analog and digital input signals from physical devices to control system operations using serial communication and Analog / Digital outputs.
- Collaborate with Mechanical and Electrical engineers to design fully automated embedded system that require minimal human intervention, leading to an increase in customer satisfaction and retention.
- Apply Agile methodologies to plan, design, and test every feature of a product, allowing smooth extensibility, high performance, and flawless product quality.

Teacher Assistant   **January 2023 – May 2023**
University of Colorado Denver   *Denver, CO*

- Collaborated with a team of two to develop the courses, Computer Security, and Secure Networking and Programming, for the new Cybersecurity curriculum at CU Denver.
- Developed assignments for topics including: an introduction to penetration testing, SQL injections, cloud VM setup using GCP, packet capture and analysis with Wireshark, cryptography, and input validation / sanitization.

PROJECTS

Network Simulator

- Designed a network simulator, using Python and Tkinter, to create and test network topologies using PCs, switches, and routers.
- Developed a command line interface for implementing device configurations such as IP addresses, default gateways, VLANs, DHCP servers and clients, and static routes.
- Implemented logic for networking concepts including ICMP pings, ARP process, DHCP, and routing.

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

- Collaborated with a 3-person team to develop a digital archive for worldwide humanities projects.
- Implemented website using AWS LightSail, MySQL, Nginx, Django, and the MapBox API.
- Designed features including project submission, an interactive project map, and admin features such as project verification, and overall website management.

SKILLS

Python, JavaScript, TypeScript, Node.js, Modbus, RESTful API, JSON, Embedded Systems, IoT, IIoT, MQTT, Agile, C++, Java, SQL, Linux OS, AWS, GCP, Nginx, HTML, Django, Tailwind CSS, Git, OSI Model, Routing, Switching.