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## EDUCATION

### Bachelor of Science in Computer Science

University of Colorado Denver

May 2023

GPA: 3.56/4.00

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## CERTIFICATIONS

### CompTIA Security+ (SY0-601)

June 2023

### Cisco Certified Network Associate (CCNA 200-301)

July 2023

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## PROFESSIONAL EXPERIENCE

### Embedded Firmware / Software Engineer

September 2023 - Present

Geotech Environmental Equipment, Inc.

Denver, CO

- Develop embedded systems for environmental sampling and remediation applications.
- Write JavaScript code (Node.js) on Programmable Logic Controllers (PLCs) to read input signals from multiple components and control output signals accordingly.
- Wire components to PLCs to test system logic and reliability and ensure product quality.
- Use Python and JavaScript to develop and maintain the Geotech website which displays information about a customer's system, including information such as uptime, input/output signals, and overall system health.

### Technical Support

June 2023 – September 2023

Adaptive Programs at Cherry Creek Schools

Aurora, CO

- Provided technical support for 3 schools, including over 60 staff members and 150 students.
- Supported over 200 devices for staff & students by replacing hardware components, re-imaging devices, as well as troubleshooting network connectivity issues.
- Used Incident IQ Ticketing to promptly respond to tickets and manage support between the 3 schools.

### Teacher Assistant

January 2023 – May 2023

University of Colorado Denver

Denver, CO

- Collaborated with a team of two to develop new course material for the classes Computer Security, and Secure Networking & Programming.
- Topics for each class included an introduction to penetration testing, SQL injections, cloud VM setup using GCP, packet capture and analysis with Wireshark, hashing and cryptography, as well as input validation and sanitization.

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## PROGRAMMING PROJECTS

### Network Simulator

- Designed a network simulator to create and test network topologies using PCs, switches, and routers.
- Developed a command line for configuring various aspects of devices such as IP addresses, default gateways, VLANs, DHCP servers and clients, static routes, and more.
- Implemented ICMP pings, the ARP learning process, dynamic MAC address learning, DHCP DORA, as well as routing logic.

### Brady Public Humanities Archive (Visit: [bradyhumanities.org/](https://bradyhumanities.org/))

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

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## SKILLS

**Skills:** Python, Tkinter, JavaScript, Node.js, JSON, MQTT, C++, Java, Embedded Systems, SQL, Linux OS, AWS, GCP, Nginx, HTML, Tailwind CSS, PHP, Cisco IOS, OSI Model, Routing, Switching.