Billy Buehl | Network Engineer/ Developer

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Objective

An IT/ dev-oriented position where I can expand upon my academic networking and development skills to benefit a company.

Technical Skills

Programming : Python, Javascript
Web Development : HTML/ CSS, Javascript, JQuery, Apache, Flask, SQL/ MariaDB, Python-Flask
Networking : Wireshark, Bash, Linux, Network Analysis, IP Subnetting, Router Configuration, Website Maintenance, Zabbix
Version Control : Git

Relevant Professional Experience

Web Developer/ Designer | *NASA Glenn Research Center*   January 2021 - Present
Cleveland, Ohio
- Develop automation applications using python
- Create web pages and apps using HTML/ CSS/ JS and JQuery
- Collaborate with NASA Safety Center professionals to create web and multimedia content

Internet Engineering TA | *Ohio University Computer Science*   August 2020 - December 2020
Athens, Ohio
- Collaborate with ITS faculty and staff to deliver ITL course materials
- Assist undergraduate/ graduate students with course work and labs
- Develop apps using JS/ HTML/ CSS for learning assistance and technical explanation
- Grade student lab reports and course work

Network Engineering Intern | *Progressive Insurance*   May 2020 - August 2020
Mayfield, Ohio
- Worked alongside Progressive's Network & Telecom and Server & Infrastructure teams
- Collaborated with app development interns to build AWS transcription/ voice recognition app
- Wrote python scripts for automation and development projects
- Solved server and networking related tickets, incidents, and work orders
- Utilized git/ github for remote project collaboration

ITS Ambassador | *J. Warren McClure School of Information and Telecommunication Systems*   March 2019 - May 2020
Athens, Ohio
- Assist ITS faculty and staff with McClure School promotion
- Created McClure media and maintained McClure website

Motion Designer & CG Artist | *Frame One Media*   August 2018 - January 2020
Twinsburg, Ohio
- Designed animations with Adobe After Effects and Premiere
- Collaborated with business professionals seeking video or animation products
- Modeled, textured, and animated 3D models using Cinema 4D

Education

Ohio University, Athens OH

Master of Information and Telecommunication Systems   December 2020
GPA : 4.0

Bachelor of Science in Communication   May 2019
Major : Integrated Media Production
Double Minor : Information & Telecommunication Systems and German
GPA : 3.691

Relevant IT/ Development Coursework

Internet Engineering | *McClure School of Information and Telecommunications*   Fall 2019
Grade received: A
- Explored the concepts of IP addressing, router configuration, and network infrastructure
- Utilized networking tools such as Wireshark, GNS3, and command line utilities
- Configured and managed local area networks on Windows, Linux, and Mac operating systems

Encrypted Communication | *McClure School of Information and Telecommunications*   Fall 2019
Grade received: A
- Examined principles of telecommunication encryption and security
- Employed tools such as symmetric/ public key encryption, hash functions, SSH, and VPN

Information Networks | *McClure School of Information and Telecommunications*   Fall 2019
Grade received: A
- Studied principles of routing, subnetting, internet protocols, and networking applications

Scripting in Python | *McClure School of Information and Telecommunications*   Spring 2019
Grade received: A
- Explored python and bash scripting/ programming techniques and principles

IT/ Development Projects

Customer Database and Estimation Tools Web App *- Python3 + Flask/ HTML/ CSS/ Javascript*
https://github.com/billybuehl792/ab_webapps
- Frontend + backend python3 Flask server
- User login and permission settings
- HTML/ CSS/ Javascript calculator
- MySQL user and customer/ job database
- LAN Linux server

Green Roof Live-Data Server *- Python3 + Flask/ HTML/ CSS/ Javascript*
https://github.com/billybuehl792/Ohio-University-Green-Roof-Data-Tools
- Python3 Flask live-data collection and monitoring server
- Purple Air HTTP request data
- HTML/ CSS/ JS frontend + mobile

IPv4 & IPv6 Subnet Calculator/ Base Converter *- Javascript/ HTML/ CSS*
http://www.its.ohio.edu/ip-calc | https://github.com/billybuehl792/Simple-Subnet-Calculator
- Calculate subnets for IPv4 and IPv6 networks given subnet mask and number of desired subnets
- Decimal, binary, and hexadecimal base converter
- "How to" page for manual subnetting and numeral system clarification
- Javascript input validation and frontend computation
- HTML + CSS user interface

Command Line Distance Vector Routing Simulator *- Python3*
github.com/billybuehl792/DV-Router-Simulation
- Multi-threaded command line python routers
- Routers communicate through sockets specified in topology configuration file
- Auto-correcting best path distance vector algorithm

Crypto-Currency Mining and Brute Force Tools *- Python3*
github.com/billybuehl792/brute-and-mine
- Iteration and mining tools without use of libraries
- Recursively iterate through every permutation of length n given a keyspace of unique characters
- Simulate crypto-currency mining and private/ public key creation
- Convert between base-10 and base-n given a keyspace size n

Green Roof Data Collection/ Monitoring Server *- Zabbix4.0 + Apache2 + Python3*
https://zabbix.its.ohio.edu | https://github.com/billybuehl792/Ohio-University-Green-Roof-Data-Tools
- Zabbix monitoring software for environmental data collection and representation
- Secure Apache2 HTTPS server for frontend UI with signed certificate
- Python scripts used for external checks/ interactions with data logging devices and 3rd party APIs
- HTTP server to accept data from HTTP POST requests

Raspberry Pi OpenVPN *- Linux/ dnsmasq*
- Remotely accessible Raspberry Pi OpenVPN
- Dynamic DNS

Visual Art Portfolio Site *- Python3 + Flask/ HTML/ CSS/ Javascript*
http://felicitygunn.com
- Secured Apache2 web server
- Flask/ wsgi based web application

Passvault Password Manager *- Python3/ cryptography library*
github.com/billybuehl792/passvault
- Command line password manager
- File and password encryption and decryption functionality
- Append, edit, and delete password entries
- Built-in password generator