Alexander J. Youngblood

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Objective

Full-time employment or an internship/Co-Op leading to full-time employment in the Summer of 2021.

Education

North Carolina State University | Bachelor's in Computer Science & Bachelor's in Mathematics

Expected Graduation - May 2021

GPA 4.0/4.0

Course Work

CSC 401 (Data and Computer Communication Networks)

- Learned about current implementation of internet infrastructure
- Worked on projects that explored socket programming and peer-to-peer communication

CSC 495 (Natural Language Processing)

- Explored ideas in computational processing and understanding of unstructured text
- Trained a model used to triage and assign (classify) user-stories to developers based off their past experience

Skills

Operations		Development		Communication/Workflow	
▪ Linux CLI / BASh	▪ Terraform	▪ Python	▪ GoLang	▪ Atlassian Suite	▪ Kanban
▪ kubectl	▪ Ansible	▪ Flask-restful	▪ Docker	▪ ReadTheDocs	▪ Sprint-Review
▪ Wireshark	▪ Vault	▪ NodeJS	▪ Swift	▪ PyDoc	▪ Post-Mortems

Experience

Oracle | Cloud-Native Engineer Co-Op (Platform-as-a-Service Team)

May 2019 – December 2019

- Tested and deployed updates to 3rd-Party systems/services (K8s, ETCD, Core-DNS, Calico)
- Built and tested CI pipelines for services used by the PaaS team
- Worked with clients as my team's single point of contact; identified issues, maintained service availability, and presented post-mortems on incidents
- Implemented alerts & metrics used to improve operational efficiency and platform performance
- Wrote functional tests for new and existing services that comprised our platform
- Worked with other Co-Ops to streamline the onboarding process for new services deployed on our platform

Girls Who Code Program, Clyde A. Erwin Middle School | Program Facilitator

September 2017 – June 2018

- Facilitated a class of high school and middle school students through the feature definition, design, and development of two projects: a website aiding pet-owners, and an informational app for mental health issues
- Showed the class how to utilize a Kanban style project management system

Projects

OpenFaaS Single-Use Certificate Authority

November 2020 – January 2021

- I wanted a way to rotate SSH access to my IOT projects without having to physically touch any end-system
- Architecture consists of a no-touch CA server (currently hosted on DigitalOcean) providing a FaaS function for signing SSH certificates with keys retrieved through Hashicorp Vault, my Azure account housing the keys used by the CA (other IAMs can easily be added), and a bastion server on my private network with a client script used to generate a new certificate, have it signed by the FaaS function, and SSH to the end-system, in short succession
- System currently uses certificates with a 10 second lifespan and 2FA offered by Azure to enable 'single-use' policy

Distributed Computer-Vision

December 2018 – Present

- Seeking a way to intelligently distribute computer-vision workloads
- Using a K8s cluster on Raspberry Pi's to scale an object-classification workload; this allows for reduced latency between incoming video source and processed.
- Testing a service that dynamically set's server weights in kube-proxy's instance of IPVS, based on connection speed between node with video source and nodes performing video processing