

NOAH KONTUR

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Education

Washington University in St. Louis, St. Louis, Missouri

- Master of Science in Computer Science, May 2021
- Bachelor of Science in Mathematics, May 2021
- Cumulative GPA: 3.97/4.0

Employment and Experience

OctoML, Seattle, Washington

Cloud Infrastructure Engineer (June 2021 – Present)

- Introduced spot instances and Cloud Custodian in AWS, GCP, and Azure, dropping cloud costs by over fifty percent
- Overhauled production Gitlab CI pipeline to use scalable Kubernetes runners, decreasing flakiness and cost
- Reworked Jenkins CI infrastructure for the Apache TVM project, increasing reliability and scalability
- Developed Python tooling to automate PagerDuty on-call rotations and VM user tagging in AWS
- Assisted in evidence-gathering and presentation process for SOC 2 audit

CPK Construction, Cleveland, Ohio

Contract network engineer (July – August 2020)

- Upgraded server and workstation components and installed network switches
- Reconfigured Active Directory domains and Cisco firewall ACL's
- Saved company thousands on equipment costs and licensing fees

NASA Glenn Research Center, Cleveland, Ohio

Intern at NASA GRC's Space Communications and Navigation Division (June 2019 – August 2019)

- Augmented MATLAB orbital analysis codebase to support Delay Tolerant Network simulations
- Simulation code currently being used to design HLS (Human Landing System)

Intern at NASA GRC's Space Communications and Navigation Division (June 2018 – August 2018)

- Utilized optical character recognition to extract valuable tabular data from images
- Results used to develop space scheduling algorithms
- Presented to NASA Headquarters on my culminating paper

Featured Projects

Home Lab (<https://github.com/konturn/homelab>)

- Designed and implemented sophisticated in-home network architecture from the ground up
- Configured Wireguard VPN, Nginx servers, NFS, SMTP, DNS, VRRP, VLAN's, Grafana, and MySQL
- Set up a Gitlab CI pipeline which deploys to the infrastructure using Python, Bash, and Ansible

SADDNS Implementation (<https://blog.nkontur.com/index.php/2021/01/04/sad-dns-cse-433-final-project-report/>)

- Coded a Python implementation of the recent SADDNS vulnerability (<https://www.saddns.net/>)
- Validated implementation on a sandbox test network
- Wrote up results in blog form and published code to GitHub

Skills and Competencies

- Coding Languages: Python, C
- Protocols and Platforms: TCP/IP, AWS, GCP, Azure, Terraform, Ansible, Packer, Docker, Kubernetes, KVM
- Certifications: Linux+, AWS SAA, CCNA

Publications

- Kontur, N., Welch, B., "Space Communications and Navigation Validation: Extracting Data for the Strategic Center for Networking, Integration, and Communications' Scheduling Algorithms," NASA-TM-2019-219995. March 2019