

NATE SALES

Student and Infrastructure Engineer

CONTACT

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SKILLS

- Software development (Python, Go, and Java)
- BGP and anycast routing
- Network automation
- Linux system administration
- Tooling and CI/CD (Git, GitHub Actions)

EDUCATION


Catlin Gabel School
Rising Senior, Graduating 2022

EXPERIENCE

RESEARCH INTERN

 *Cloudflare*
June 2021 - Present

CHIEF TECHNOLOGY OFFICER

 *Fosshost*
March 2021 - Present

- Leading a global team to design, deploy, and maintain our network and virtualization infrastructure
- Working with projects to develop solutions to their infrastructure needs
- Reporting directly to the CEO

SITE RELIABILITY ENGINEER

 *Fosshost C.I.C.*
May 2020 - March 2021

- Designed and implemented a global hosting network for the benefit of over 100 Open Source projects including Debian, Rocky Linux, and GNOME.
- Responsibilities include: hypervisor configuration management, VPN for internal services, BGP network design and working with vendors

ADVISORY BOARD MEMBER

 *Emerald Onion*
June 2020 - Present

- Designed, deployed, and responsible for ongoing management of an anycast recursive DNS network with encrypted DNS protocols
- Implemented DNS-over-QUIC and maintainer of Oblivious DNS-over-HTTPS server
- Developing a XDP based peering edge router for multi-gigabit routing in Linux

CO-PRESIDENT AND ROBOT SOFTWARE MANAGER

 *FRC Team 1540*
June 2020 - Present

- Managing a team of student engineers working to design, build, and program ~120lb robots
- Works closely with other technical departments to design and execute creative solutions to engineering challenges

ROBOT SOFTWARE DEVELOPER

 *FRC Team 1540*
June 2017 - June 2020

- Developed autonomous and teleoperated driver-assist robot control code in Java
- #1 ALLIANCE CAPTAIN - 2020 Clackamas Academy
- AUTONOMOUS AWARD - 2019 Wilsonville District
- CHAIRMAN'S AWARD - 2017 PNW District Championships

PROJECTS

PACKETFRAME

 *Anycast Content Delivery Network*

- Designed, built, and deployed a CDN for authoritative DNS and HTTP caching with 40+ anycast PoPs globally
- Managing all aspects of the network from Layer 1 to Layer 7
- Presented my work at NANOG 81 and the APNIC Blog

AMATEUR RADIO INTERNET EXCHANGE (ARIX)

 *Internet Exchange Point for Ham Radio operators*

- Responsible for design and operations of the IXP
- Working with networks in their connection onboarding process