

EDUCATION

- **KTH Royal Institute of Technology** Stockholm, Sweden
M.Sc. Eng. in Software Engineering of Distributed Systems; GPA: 4.20 2021 – 2024
- **KTH Royal Institute of Technology** Stockholm, Sweden
B.Sc. in Information Technology 2017 – 2021

EXPERIENCE

- **Red Hat**
Master's Thesis on benchmarking Open vSwitch 2023 - 2024
 - **Methodology Development:** Collaborated closely with a Senior Principal Software Engineer to develop a benchmarking methodology for Open vSwitch to determine its performance upper limit by predicting future network flows.
 - **Implementation:** Implemented the methodology on a single-node OpenShift Container Platform (OCP) cluster, integrating eXpress Data Path (XDP) to inject timestamps into UDP packets for flow tracking.
 - **Daemon Development:** Authored a custom daemon for real-time parsing of packet timestamps across network pods, enabling detailed performance analysis.
 - **Performance Enhancement:** Improved network latency, CPU utilization, and upcall processing by preloading network flows, showcasing the potential of predictive traffic management in large-scale networks.
- **EY Cyber Security Mentorship Program** Stockholm, Sweden
Mentee 2024
 - **Cyber Security:** Gained hands-on experience in risk management, risk assessments, and cybersecurity consulting; expanded professional network in cybersecurity.
- **CDT Audio** Buellton, CA
Multidisciplinary Trainee 2016 - 2017
 - **Experience:** Gained hands-on experience in product assembly, contributed to marketing strategies, assisted with sales quotas, client interactions, and created user manuals.

PROJECTS

- **Verbalizer:** Architected and implemented a cross-platform text-to-speech software solution using React, Swift, and Node.js, encompassing end-to-end coding for front-end and back-end functionalities. This includes integration with Google Cloud Platform, user authentication, and data storage through Firebase Firestore and self-hosted MongoDB.
- **'GitHub-Powered Backup System:** Designed a GitHub repository-based personal backup system, employing Python and Bash to split large files into smaller segments within GitHub's size constraints, transforming it into a long-term storage solution.

TECHNICAL EXPERTISE

Programming and Frameworks

Proficient: Python, Java, Bash, Javascript, Typescript
Familiar: C, Erlang, Elixir, Swift, React, Express.js, SwiftUI
Systems: Linux, Unix, Unraid

Big Data and Containerization Technologies

Big Data: Hadoop, Map-Reduce, Spark, Kafka
Databases: Firebase, Redis, SQL, NoSQL, MongoDB, Cassandra
Containerization: Docker, Docker Compose, Kubernetes

Networking and Security

Protocols: TCP/IP, UDP, DNS, HTTPS, DHCP
Tools: BGP, FRRouting, Wireshark, XDP, Scapy
SDN: Open vSwitch, Open Virtual Network, OpenFlow