

EDUCATION

KTH Royal Institute of Technology	Stockholm, Sweden
• <i>M.Sc. Eng. in Software Engineering of Distributed Systems; GPA: 4.20</i>	2021 – 2024
<i>B.Sc. in Information and Communication Technology</i>	2017 – 2021

EXPERIENCE

Red Hat	
• <i>Master's Thesis on benchmarking Open vSwitch</i>	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
• <i>Mentee</i>	2024
◦ Cyber Security: Gained hands-on experience in risk management, risk assessments, and cybersecurity consulting; expanded professional network in cybersecurity.	
CDT Audio	Buellton, CA
• <i>Multidisciplinary Trainee</i>	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