

Emil Gedda

WORK EXPERIENCE

SUMMER 2019

Software Engineering Intern
EF Education First

Software Engineering Intern at EF Class in Chelsea, London. Working with microservices in Go orchestrated by Kubernetes on AWS developing free educational software for schools.

JUN 2018 – JUN 2019

Software Developer
SAAB Group

Software Developer at SAAB Group, Electronic Warfare department. Worked with the Linux kernel as well as writing high performant C++98/14 software with modern tools such as Jenkins, Docker, Google test, and LLVM.

AUG 2016 – AUG 2018

Teaching assistant
KTH Royal Institute of Technology

Teaching assistant in DD1361: PROGRAMMING PARADIGMS, an introductory course into different programming paradigms, such as functional programming in Haskell, and logic programming in Prolog.

Teaching assistant in DD1388: PROGRAM SYSTEM CONSTRUCTION USING C++. The course aims to teach students C++98/11/14 and how to apply the standard library while writing efficient, testable code.

SUMMER 2010

Software Developer
OpenRatio

Summer intern and developer of their Windows Phone platform, writing pure C# for their enterprise mobile platform. Their platform enabled clients to develop cross platform apps and manage said apps without any programming knowledge, using a platform-independent web interface.

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EDUCATION

2018 – PRESENT	Master of Science COMPUTER SCIENCE <i>KTH Royal Institute of Technology</i>
2017 – 2018	Master of Science COMPUTER SCIENCE Exchange studies in USA <i>University of Illinois at Urbana-Champaign</i>
2014 – 2017	Bachelor of Science COMPUTER SCIENCE <i>KTH Royal Institute of Technology</i>

SKILLS

Intermediate	PYTHON, x86_64 ASM, SQL, git, C#, Bash, Golang, Cyber Security
Advanced	C18, C++20, GNU/Linux, Haskell, JAVA, Prolog

INTERESTS

My main areas of interest are performance optimization, functional programming, and cyber security. I have a burning passion for high performant modern C++ code and operating systems. When it comes to cyber security my main interests are reverse engineering and penetration testing.

PROJECTS

SPRING 2016

kOS x86_64 OS

Current spare time project

URL: <https://github.com/EmilGedda/kOS>

kOS is a 64bit operating system for the x86 platform. kOS is written in C++2a using libc++, libc++abi, and libunwind. kOS is still very much in its planning stages. kOS will feature a microkernel designed for fast IPC and modularity, while still being simple enough for educational purposes.

SUMMER AND FALL 2016

Hattis

Spare time project

URL: <https://github.com/EmilGedda/hattis>

Hattis is a simple command line interface tool for the online programming problem judge, kattis. Hattis allows users to submit solutions and track the submission progress live, all from the command line. The tool is written in Haskell, exercising modern techniques regarding error handling and correctness.

PAPERS

SPRING 2017

Analysis of The Precision Time Protocol
under different forms of system load

Bachelor Thesis

URN: [urn:nbn:se:kth:diva-208493](https://nbn-resolving.org/urn:nbn:se:kth:diva-208493)

Evaluated the most popular implementation of the Precision Time Protocol, IEEE1588, under different types of system load. This involved setting up a local network of devices and synchronizing their system clocks while stressing different subsystems of the connected devices. The results showed that the accuracy and precision of PTP suffers greatly when a client is under heavy load.