Kristoffer Andersen

Consulting software developer, one startup later.

As a former co-founder and embedded software engineer of the high-tech electronics company OpenMono, I am currently a freelance software engineer. I create integrated solutions of embedded systems, combining my software abstractions with a solid understanding of the lower levels of computer architecture.

I am a M.sc. graduate from DTU. I studied signal processing and pattern recognition combined with computer science. My works include file systems, operating systems, sound synthesis, web systems design and hardware design.

Education

2010–2013 **MSc**, *DTU*, Lyngby.
Embedded System, Signal Processing

2006–2010 **BSc**, *DTU*, Lyngby.
Embedded Systems Engineering

Master thesis

title *An Application Design Pattern for a Virtual Machine based Window System*

supervisors Sven Karlsson

description The thesis explores an operating system's *window manager*. This novel window manager separates the code for the application's graphical user interface, from the remainder of the application codebase. All graphics related code execute inside a virtual machine, that is build into the window manager. This approach eliminates expensive *context switches* and TLB shoot downs.

Experience

Clients

2014– **Consulting Software Engineer**, *ItsLearning A/S*.
Development and operation of backend micro services for system integrations.

2018 **Consulting Software Engineer**, *Substy, MentorDanmark ApS*.
Development of new features and integrations, backend and frontend.

2017 **Consulting Software Engineer**, *Velocator ApS*.
Development of embedded software for a device with strict power control and multiple wireless connections.

2016 **Consulting Software Engineer**, *Rokoko ApS*.
Enhancing Wifi communication using the Redpine Wifi module. This included raw UDP and TCP communication protocols.

2016	**Consulting Software Engineer**, *Wavepiston A/S*.
	Technical consulting and review of embedded software code.
2014–2015	**Consulting Software Engineer**, *LittleSun GmbH*.
	Development of new features for their light product, based on a very power restricted embedded system.
2014	**Consulting Software Engineer**, *København Hovedbibliotek*.
	Development of Kinect based tracking system for use as a game controller.

Vocational

2013–2017	**Co-Founder & Embedded Software Engineer**, *Prototype ApS*.
	As the Co Founder of Prototype ApS, I primarily worked as a freelance software engineer, mainly for embedded systems. However, I also co-created a data collecting neural-amplifier and stimulator, for use at the Department of Neuroscience at University of Copenhagen.
2014–2017	**Co-Founder & Embedded Software Engineer**, *OpenMono*.
	As Software Engineer at Monolit ApS I developed the embedded software library that powers the OpenMono platform. This included the creation of platform abstraction layers, along with implementation of the graphic routines, network stack, power mgmt., low-level I/O (SPI, GPIO, etc.) and bootloaders.
2009–2013	**Software Engineer**, *EduLab ApS*.
	Development of EduLabs education platform, with focus on new features. Areas includes maintaining a full stack from server operations to development environments.
2006–2009	**Support Technician**, *BullGuard*.

Languages

Danish	**Native**
English	**Full professional proficiency**
Swedish	**Professional working proficiency**

Skills

macOS	Cocoa, Swift, Objective-C	Windows	C#, .NET Framework
Linux	USB devices, udev rules, Package Mgmt., X Server, LinuxFB	Cross OS	C, C++, Qt, C#, .NET Core, NodeJS, PyQt, TypeScript
Embedded	Cortex-M, AVR, Cypress PSoC, Embedded Linux & Qt	Tools	Git, Bash, Docker, LaTeX
Tool chains	GCC, ARM-GCC, make, ld, llvm & clang		