

Carl Emil Elling

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B.Sc. Electronics and Physics Engineer



Select experience

Co-founder

LærMaple A/S, 2018-2019

During my studies, a friend of mine and I identified problems in the understanding and application of Maple, a math program primarily for engineers though often used in Danish high schools. This led us to develop a platform and a range of tutoring videos specifically to address these issues. The company was closed when we had to prioritize our studies.

Student Co-worker

Pfizer Søborg, 2015-2016

In my employ at Pfizer, I worked at the engineering office, assisting senior engineers in many situations. I have gained experience in engineering workflows, become a superuser in common enterprise software such as SAP, and generally laid a solid foundation for my superiors to work from.

BIO

Passionate and a bit nerdy in a good way.

I thoroughly enjoy creating novel solutions to complex problems. Although this might sound like a cliché, it is a driving force in my life, leading me to do electronic and mechanical projects in my spare time – *simply because I cannot help it.* This ranges from building a CNC router for my own enjoyment to starting an amateur rocketry club during my studies.

Academically, I have broad interests. My B.Sc. is a combination of both physics and electrical engineering to satisfy this curiosity, and I've tailored it with a heavy focus on the latter.

Despite the archetypical engineering profile, connecting with people has always been a strong suit of mine. Among many other manifestations, I use it in playing the piano, which I've done most of my life, accompanying singers, bands and arranging concerts. Apart from socially, I benefit from it in most other contexts, and can deliver a serious and constructive opinion with a smile.

Education

B.Sc.

Earth and Space Physics and Engineering 2016-2020

Technical University of Denmark Graded average: 10.4

With bachelor thesis: "Exploring the use of Brain-Computer Interfacing in drone control" on controlling a drone with your brain.

Board member and founding member, 2016-2018, of danSTAR, a student rocketry club.



General Upper Secondary School 2012-2015

Frederiksborg Gymnasium og HF Graded average 11.5





Select projects and skills

Programs and skills

Solidworks

Analog circuit design & **LTSpice**

Signal processing

Image analysis & deep learning

Systems control





Programming languages

MATLAB

Python



Processing & Arduino advanced





Projects and courses

SensUs Student Competition, 2020

Along with a team of 15 students from varying engineering disciplines, I participated in the Eindhoven-based SensUs Student Competition, the goal of which was to prototype and develop a biosensor for detecting epilepsy medication in blood. I developed the electronics and sensing method using the Giant Magnetoresistance effect and acted as one of two project managers.

Bachelor's thesis on controlling drones with thoughts, 2019

After discovering a **passion** for bioengineering, I did my bachelor's thesis on Brain Computer Interfacing – a technology combining electronics, physics and machine learning in neuroscience in order to extract info on brain

activity during specific thoughts. This meant the thoughts could successfully be used as a control sequence for a drone.