

EDUCATION

Chalmers University of Technology

M. Sc. Applied Physics (2015), B. Sc. Engineering Physics (2013). "Teknisk Fysik"

*Some relevant courses: Master's Thesis: Total Light Annihilation for **SERS**. Modern Imaging, Nanotechnology, Optics, Solid State Physics.*

WORK EXPERIENCE

Gullbrandstorp Ingenjörbyrå AB *Founder, Consultant (March 2023- Present)*

Micropower Group

- Embedded development on ARM Cortex for industrial battery chargers.
- Working on modernizing build tools, updating bootloader, getting new device up and running (C/C++) from hardware to REST API. Small R&D department with a lot of agency.

NutriSnap – *Solo Developer, Full-Stack & AI Integration (Jan 2025–Present)*

- Built a full-stack AI nutrition tracking app (PWA) that analyzes food photos using multi-model inference (OpenAI, Gemini, Grok).
- Developed backend in FastAPI with Stripe-based tiered billing, usage quotas, and multilingual support. Frontend in React/TypeScript.
- Integrated AI prompting chains for few-shot reasoning and auto-correction of LLM output and prompt iteration for improved model accuracy.

Polestar AB *(March 2023 - Dec 2024)*

- Responsible for further implementation and testing of battery/propulsion features + functions described below.
- Main responsible for integration and release pipelines/processes. working in small, independent, team in tight communication with CI/DevOps and PO.

MancerAI - *Inhouse, solo, project (Feb 2024-)*

- Building a team of autonomous AI agents that automates Jira planning and feature breakdown, as well as automatic readme creation and maintenance. Built in python using fastapi and other libs.
- Utilizing RAG and graph search, built on the Greptile platform, backed by Y-Combinator. Currently using Claude 3.5, but model agnostic.

Acumis Minds *Technology/Software Consultant (Sept 2017 - March 2023)*

Polestar AB *(Dec 2022 - March 2023)*

- Responsible for design and implementation of new battery and propulsion features concept for upcoming high performance car, utilizing modern C++, AutoSAR and latest platform.

Vector GmbH *Scrum Master/Developer (June 2021 - Dec 2022)*

- Organized scrum events for agile team of diverse (cultural and experience wise) developers. Facilitating meetings to improve team performance and spirit.
- Regular meetings regarding planning and sync with stakeholders
- Feature owner and main responsible for several deliveries

Oskar Paulander
oskar@gullbrandstorp.com
(+46) 79 102 64 62
Tallflyv 11, 313 50 Åled, Sweden

- Developed Adaptive Autosar platform for automotive industry (BMW, GM, Volvo etc), specifically through ASIL certification according to ISO 26262

Ericsson AB Developer Embedded Systems (June 2018 - June 2021)

- Development and testing of MiniLink products (Microwave radio replacing fiber, and a part of the 5G infrastructure).
- Implemented IPv6 Gateway support, Layer 2 features such as double tagged DCN - from hardware to user interface. Working in agile, cross functional, scrum team.

Gemalto AB Software Developer Embedded Systems - R&D (Jan 2018 - June 2018)

- Responsible for design and implementation of GUI for highly secure embedded device utilized by German bank applications.
- Optimized image processing and smart card communication for said device.
- Developed emulation software in C++ for testing before hardware was available.

Tele-Radio AB

Software Developer Embedded Systems, R&D (April-Sept 2015, Jan -Sept 2017)

- Programmed Firmware for Industrial Remote Controls.
- Implemented memory access and data conversion for PC configuration tools.

Software Support-Engineer, GSI (Sept 2015- Dec 2016)

- Programmed remote control systems for special applications, many generating over \$100 000 in sales annually.
- Trained subsidiaries in five countries on products and integration with bus-systems.

Smartnoise AB

Software Developer / Project Manager (Jan 2014-)

- Developing iOS app, chrome plugin and later webapp improving children with ADHD's cognitive performance, utilizing stochastic resonance via auditory stimuli.
- Produced stochastic voltage protocols for electric stimuli (Electrical Vestibular Stimuli) in patients with ADHD, parkinson'.
- Overseeing external consultants, minimizing the time required to complete the task.
- Turned out to benefit dyslexic users via visual stimuli. Ongoing research and development.

Lund University / Smartnoise AB

Researcher's Assistant (July 2013 - Present)

- Analyzing data for researchers, presenting it in a creative way to users via website
- Main point-of-contact for beta-test users, including on site visits to schools.
- Responsible for method sections of published articles, explaining the nature of the devices and noise protocols used in various studies.

OTHER QUALIFICATIONS

Raylyze

Founder, CEO and lead AI Developer (May 2020 - July 2021)

- Developing and designing a handheld Raman Spectrometer (SW and HW) for ultra sensitive detection of unknown substances.
 - Driving down HW costs by utilizing powerful machine learning SW based on Convolutional Neural Networks
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Software Experience

C,C++, Python, Java, Matlab, Javascript,
Parallel Computing, OpenMP, MPI, Machine Learning (ANN implemented from scratch -
matrices, Convolutional NNs, Deep Q, Markov chains etc),
PyTorch, Tensorflow, Pinecone,
RAG, Vectorization/Vector databases, prompt engineering, LLM APIs
ARM, Linux/Unix (Redhat, Ubuntu), External frameworks for LLMs, RAG
MySQL, SQLite, XML, json,
Django, Docker, Linode,
git, hg,
Hansoft, Jira, Redmine, Jenkins, Gerrit
SCons, make, gcc, cmake, tasking, Tricore

Activities and other qualifications

- Co-author on published article in cognitive neuroscience with Smartnoise
- Administering an online forum with >2 million users. Managed onboarding for online Starcraft community with >3000 members.
- Competed in chess on Swedish elite-level (junior) with ~1900 rating at age 15.
- Several web apps (Meal tracker, husband companion, note taking app, several webpages etc) available on request