Yohann Jacob **Sandvik**

DATA SCIENCE · COMPUTER VISION · EMBEDDED DEVELOPER · BORN JUNE 17. 1995

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Relevant skills

I have used **Python** for data science and data management. I have experience with packages in the **scipy**-stack, machine learning models in **scikit-learn** and developing deep learning models with **PyTorch** and **Tensorflow**. I am comfortable with **MATLAB**, and familiar with the **Julia** and **R** programming languages.

I have experience with the **C** programming language, and the **Git** versioning system. I am comfortable developing software in a **Linux**-based environment, and like to automate processes with **BASH** scripts. I have experience with setting up virtual software environments using **Anaconda** and **pyenv**, and configuring containers using the **Singularity** framework. I have worked in projects using the **Agile**- and **Test-driven-development** methodologies, and have used **Jira** for task management. Having both an Indian and a Norwegian parent I am also fluent in Norwegian and English.

Education

Ph.D. in Data Science
NORWEGIAN UNIVERSITY OF LIFE SCIENCES (NMBU)

Ås, Norway
April 2022 - August 2025

- Research has been conducted at SmartForest, NIBIO - part of the centres for research-based innovation (SFI) scheme.
- The research was centered around real-world problems relating to estimating the volume of lumber, and tracing logs from harvest site to saw mill.

M.Sc. in Electronic Engineering (MTELSYS)
NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY (NTNU)

Trondheim, Norway
August 2014 - June 2020

- Specialization in signal processing and communications with additional subjects in statistical analysis.
- Including a year of exchange at the graduate school EURECOM in Biot, France.
- Master thesis: Machine Learning for Classification of Myocardial Infarction and Heart Failure Using Longitudinal Strain Curves.

Experience

Norwegian University of Life Sciences (NMBU) and NIBIO
RESEARCHER, LECTURER AND TEACHING ASSISTANT

Ås, Norway
April 2022 - August 2025

- Literature review published in the Forests journal under the MDPI publishing house.
- Developed program using object detection models for optical character recognition of codes used to track logs from harvest site to saw mill.
- Developed program where the object detection model YOLO is compared to semantic segmentation model U-net for the purpose of volume estimation of consignments of logs.
- Teaching assistant "DAT300 - Applied Deep Learning"
- Lecturer and Course manager "IMRT100 - Introductory Course, Subject-oriented Project" and "DAT200 - Applied Machine Learning"

Data Respons R&D Services
EMBEDDED DEVELOPER

Høvik, Norway
October 2020 - April 2022

- Worked as a hardware developer and low-level software developer on two major projects. During my two years there I had less than two weeks where I was not invoicing billable hours on a project.
- I was part of a team that was sub-contracted by a German defence company, where I contributed by reviewing hardware designs, testing partial and complete high-power assemblies, and developed and tested dedicated software solutions in C and C++.
- I was the lead hardware developer in a project for an autonomous vehicle company, responsible for designing and prototyping the hardware assembly for the autonomous-driving-dedicated computer of an autonomous vehicle.

Revolve NTNU (Formula Student)
HEAD OF ELECTRONICS GROUP

Trondheim, Norway
April 2017 - September 2018

- Revolve NTNU is NTNUs team in the international student competition Formula Student. In Formula Student, teams from different universities compete with Formula-1-style electric race cars that are designed, assembled and tested in-house.
- My position at Revolve NTNU was Group Leader of the Electronics group, which was responsible for the entire electronic system of the vehicle.
- I developed part of the vehicle safety system, and as Group Leader I also supervised the work of eight embedded developers.

Other Experience

Summer Internships & Minor positions

2021 - 2022   **Data Respons R&D Services**, Responsible for managing the company's social media pages.

2020   **Faculty of Medicine @ NTNU**, Developed a small web-application where clinicians could test deep learning models.

2019   **Nordic Semiconductor**, Digital designer working with timing verification of IC designs.

2017   **Kongsberg Defence and Aerospace (KDA)**, Hardware engineer in a student-project called LocalHawk.

Volunteer Roles

2017   **E&T dagene**, Head of the Business Contacts group at the student career fair.

2016   **NTNUI Jiu Jitsu**, Was responsible for managing the clubs finances for a year.

2014 - 2015   **Omega (student union)**, Part of the founding members of the student union's brewing committee