Per Magne Florvaag

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Experience

02.18–current   **Research Engineer**, *Simula Research Laboratory, Machine Intelligence Department*.
Developer for PaCRTool, a guidance system for pacemaker implantations. Writing acquisition drivers for cardiac signals, as well as real-time processing, analysis, verification and visualization of various physiological signals. Doing image analysis and deep learning for our segmentation module, a semi-automatic application for quickly creating a heart mesh from a 3D MRI. Lastly, I'm responsible for implementing standards, among others, IEC 62304 and ISO 14971, and keeping the software compliant with the applicable EU and FDA regulations.

01.19–current   **Scientific Programmer**, *Kalkulo AS*.
Developing cloud-based machine learning tools to automate interpretations and analysis of geological data for large energy companies. Projects includes everything from creating data sets, building ML models, to creating web frontends.

08.16–02.17   **Teaching assistant** , *University of Oslo*.
Teaching group lectures of the joint masters/bachelor level courses *Problem Solving with High Level Languages* and *Introduction to Scientific Programming*

Education

08.16–05.18   **Master Applied Mathematics**, *University of Oslo*, Simula Research Laboratory.
Field of study: Computational Science. Master thesis: *A Pipeline for Extraction of Patient-Specific Geometries with Machine Learning*. Grade A, evaluated by Jean-Luc Starck.
Thesis: https://www.duo.uio.no/handle/10852/63309

08.13–06.16   **Bachelor Mathematics and Economics**, *University of Oslo*.
Field of study: Mathematics and optimizations. Math and statistics program with macro- and micro economics

Projects

07.19–09.19   **Explainable Deep Learning**, *Simula and Scripps Research Institute*.
Joint work with Scripps Research Institute in San Diego. The aim of this project was to extend their models for ECG classification by providing an automatic interpretation of the model's classification as a step towards improving ML diagnostics' usability in the clinic.

2016–2019   **Workout logger**, *Android, Java, Firebase*.
A "social" app for tracking workouts. The intended audience is professional athletes and coaches. It supports two types of users, athlete and coach. An athlete can plan, track, and analyse their training. A coach can do the same, but for multiple athletes.

2016-2017   **IPython Clone**, *Python/C*.
A python console for linux/windows. It includes some of the *magic commands* found in IPython, such as timing of code or viewing documentation. It extends IPython by allowing for writing, and running, incline C functions in the console.

Technical Skills

Languages   PYTHON, C++, C, JAVASCRIPT, JAVA, MATLAB
Scientific   Scipy stack, scikit-learn, Keras, TensorFlow
Web   Django, Flask, Vue.js, AngularJS
Other   QT, Android, VTK, Firebase, git, TravisCI

Languages

Norwegian   **Native**
English   **Near Native**