

# Kristian Forfot Sagmo

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## EDUCATION

### NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY

#### M.Sc. IN APPLIED PHYSICS

Aug 2010 - Dec 2016 | Trondheim, STR

Cum. G.: C / A

Major Cum. G.: B / A

### VESTOPPLAND (HADELAND) FOLK HIGH SCHOOL

Grad. May 2008 | Gran, Norway

### NORWEGIAN HIGH SCHOOL

Grad. May 2007 | Malvik, Norway

## LINKS

LinkedIn:// KristianSagmo

YouTube:// KristianSagmo

## COURSEWORK

### GRADUATE

Design of a Wind Turbine

Energy and Environmental Physics

Space Technology I

Nuclear and Radiation Physics

Solid State Physics

Optics

Flow Measurement Methods (TU Berlin)

Instrumentation

Statistical Physics

Electromagnetic Theory

### UNDERGRADUATE

Quantum Mechanics Introduction & I

Astrophysics

Fluid Mechanics

Procedural & Object-Oriented

Programming

Wave Physics

Statistics

Technology Management

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## SKILLS

### PROGRAMMING & CAE SOFTWARE

Experienced

STAR-CCM+ • SolidWorks • Python

MATLAB •  $\LaTeX$

Familiar:

OpenFOAM • LabVIEW • HTML • Java

JQuery • AutoCAD Inventor • SprutCAM

QBlade • C++

## EXPERIENCE

### REVOLVE NTNU | AERODYNAMICS COACH

Sep 2016 – Jan 2017 | Trondheim, Norway

- Teach use of CFD software STAR-CCM+ to new Aerodynamics-group and assist with aerodynamic analysis, CFD analysis and CAD work-flow.

### REVOLVE NTNU | AERODYNAMICS AND CFD ENGINEER

Aug 2015 – Sep 2016 | Trondheim, Norway

- Multidisciplinary cooperation in the international engineering competition Formula Student. Responsible for analysis, design and production of car front wing, as well as validation of CFD approach in STAR-CCM+. The car, *Gnist*, was first 4WID EV built in Scandinavia. Winner of the Jaguar Land Rover Award For Innovation in Propulsion Systems and Class 1 Best High Voltage Power-train Implementation by Mercedes AMG High Performance Power-trains.

### REVOLVE NTNU | CFD ENGINEER, ENGINE

Aug 2012 – Aug 2013 | Trondheim, Norway

- Multidisciplinary cooperation in the international engineering competition Formula Student. Responsible for CFD analysis, design and production of engine air intake. The car, *K.A. Aquilo R*, won the National Instruments Measurement and Control Award at FSUK.

## VOLUNTEER WORK

### NTNU FLUID DYNAMICS DEPARTMENT | CFD RESEARCHER

Oct 2017 – Present | Trondheim, STR

Assisted experimental group by looking at 2D and 3D flow effects, transitional turbulence modelling and interaction of small scale horizontal axis wind-turbines with and without tip winglets.

### STUDENT MEDIA AS | PROJECT DEVELOPER

Aug 2010 – May 2011 | Trondheim, STR

Part of a team of students working with app. development for local community.

## PUBLICATIONS & RELATED WORK

- [1] K.F. Sagmo, J. Bartl and L. Sætran. A computational fluid dynamics investigation of performance of tip winglets for horizontal axis wind turbine blades. EERA DeepWind 2017 - Poster Presentation. Jan. 2017.
- [2] K.F. Sagmo, J. Bartl and L. Sætran. "Numerical simulations of the NREL S826 airfoil". In: Journal of Physics: Conference Series. Vol. 753. 8. München, Germany, Sept. 2016, p. 082036.
- [3] K.F. Sagmo, J. Bartl and L. Sætran. Numerical simulations of the NREL S826 aerofoil performance characteristics – A CFD validation and simulation of 3D effects in wind tunnel testing. EERA DeepWind 2016 - Poster Presentation. Jan. 2016.

## SOCIETIES

2015	International	CD-Adapco Global Academic Program
2012	International	Institution of Mechanical Engineers, Affiliate
2010	National	NITO - The Norwegian Society of Engineers and Technologists
2010	University	NABLA Fraternity for students in Physics and Mathematics
2010	University	NTNUI athletics