Personal information

Surname(s) / First name(s)	**Thokle Hovden, Ivar**
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Work experience

Date	10.2019 – 12.2022
Engineer M.Sc. (siv.ing.), Computational Radiology and Artificial Intelligence, Oslo University Hospital, Oslo	System administrator, research computing infrastructure. Hardware and software installation, development and maintenance. Research support computing, data storage and computer networking. Structuring and organization of research data sets, documentation.
Date	08.2018 – 12.2022
PhD Research Fellowship, Department of Physics and Computational Radiology, Oslo University Hospital, Oslo	Imaging Perfusion Restrictions from Extracellular Solid Stress. Improved brain cancer diagnostics from longitudinal volumetric MRI data (voxel tracking), such as magnetic field susceptibility image distortion correction for accurate registration of structural and blood perfusion MRI and quantification of tissue compression from treatment and tumor growth.
Date	06.19.2017 – 08.11.2017
Summer Intern, Capgemini Norge AS	"Proof of Concept" study on the use of IBM Watson technology in E-health research. Categorized information from unstructured text from Prostate MRI reports at Akershus University Hospital (Ahus) Division for Diagnostics and Technology. Insights and Data department at Capgemini Norge.
Date	09.2016 – 08.2018
Perception Team member of 2017 and 2018, Ascend NTNU	Improved the quadcopter drone's understanding of the world with sensors and software (such as multi-camera systems and Convolutional Neural Networks) for competing at the International Aerial Robotics Competition (IARC) (2017, 2018 July).

Date	06.20.2015 – 09.11.2015
Summer Internship, Cloud Department, Simula Research Laboratory, Technopolis Fornebu, Oslo	Documented and enhanced InfiniBand HPC network congestion control developed at Simula using OMNeT++ (relevant description here).

Education and training

Trondheim, Norway, 08.2017 – 06.2018	Norwegian University of Science and Technology (NTNU)
Title of qualification awarded	**M.Sc. (siv.ing.) Engineering Cybernetics in Real-time Systems**. Master's thesis: Multivariate Analysis on Preprocessed Time-Frequency Representations of Electrode Voltage Signals from Microelectrode Array Experiments on an in-vitro Dopaminergic Neuronal Culture. Interpretation of biological neuronal dynamics from multivariate models to connect time dependent biological properties of neurons to controlling a robot. Continuation of Project work. Project work (TTK4550): Principal Component Analysis on a time series of Micro Electrode-Array recordings of Dopaminergic neurons.
	Other relevant work (TTK7) Long-term frequency band characteristics of a stimulated stem cell-derived dopaminergic neuronal culture. Project work and Master's thesis a result of co-operation with Department of Neuromedicine and Movement Science (INB), NTNU and NTNU Cyborg. (more info research goal and biological neural networks).
Karlsruhe, Germany, 09.2015 – 08.2016	Karlsruhe Institute of Technology (KIT)
Title of qualification awarded	**Erasmus+ Informatics exchange year**. Machine Learning, Computer Vision, Data Mining, Distributed Computing, Microcontrollers and DSP. Neural Networks. Practical projects in Computer Vision for Human-Computer Interaction and Model Driven Software Development in Eclipse.
Trondheim, Norway, 08.2012 – 06.2018	Norwegian University of Science and Technology (NTNU)
Title of qualification awarded	**Engineering Cybernetics**. Specialization in Real-time systems with emphasis on data analysis. Mathematical modelling and control of dynamic systems (control theory, control systems as in robotics). Data science, Artificial Intelligence, Multivariate Analysis.
Oslo, Norway, 08.2009 – 06.2012	Oslo Private Gymnasium (OPG)
Title of qualification awarded	**Specialization in General Studies**

Personal skills and competences

Mother tongue(s)	**Norwegian**
Other language(s)	English, German

Self-assessment					
Self-assessment *European level*[(*)]	**Understanding**		**Speaking**		**Writing**
	Listening	Reading	Spoken interaction	Spoken production	
English	very good	very good	very good	very good	very good
German	very good	good	very good	good	good

[(*)]*Common European Framework of Reference (CEF) level*

Social skills and competences	Good team player.

Organisational skills and competences	Experience from driving a long lasting and highly competitive research project in the doctoral fellowship period. Knowledge in economy and leadership in organizations and organizational structures from the obligatory course "Technology leadership" (Teknologiledelse).
Technical skills and competences	Expert: Python, bash, C/C++. Experienced: Matlab, Go, Scala, relational and big data databases (SQL, NoSQL), cluster computing (Spark), Java, JavaScript, FPGA VHDL. **Linux enthusiast**. Problem solving in complex systems is a strong motivational factor in itself, for learning and improving my engineering skills. See my **GitHub Stats**.
Artistic skills and competences	River and sea kayaking. Fitness training. Wing Chun Kung-Fu, Yo-Yo, Ultimate Frisbee, Table Tennis, Running, Agile Strength, Orientation.
Driving licence(s)	Motor Boat license.

Additional information

Voluntary

Pstereo 2017. Isfit 2017: Camera crew. Vektorprogrammet 2016: Maths teaching for 8th grade.

Awards

2nd price winner Telenor NTNU AILab Hackaton 2017. 3rd winner at Trondheim Open Hackaton 2017 (Trondheim Playground).

Personal interests

Technology, Photography, Music, Music production (Plays piano/keyboard and some guitar and bass). Cycling and unicycling.

References

Atle Bjørnerud (OUS), Beatriz Galindo-Prieto (Imperial College London, MSc co-supervisor), Thomas Bulitia Engstrøm (Capgemini Norge), Ernst Gunnar Gran (Simula Research Laboratory), Petter Hurlen (Ahus), Erik Flæsen Dalen (Isfit 2017), Martinius Knudsen (NTNU Cyborg), Frank Ove Westad (MSc main supervisor).

Last updated

2022-09-14 [yyyy-mm-dd]