

Magnus Johansen Moldekleiv

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Master’s student at NTNU with a focus on energy and process technology, fluid mechanics, and optimisation. Combines Python-based analysis and reinforcement-learning project experience with a CNC trade certificate, practical subsea manufacturing experience, and technical service in the Norwegian Navy.

EDUCATION

Norwegian University of Science and Technology (NTNU), • Integrated MSc Industrial Economics and Technology Management: 4th year. Specializing in <i>optimisation</i> and <i>process and energy technology</i>. GPA 4.75/5.0 • Enrolled in MSc in Energy and process technology, Specializing in <i>thermodynamics and fluid dynamics</i> (4th year): Taking extra courses from this study programme	Aug 2023–present
ETH Zürich — Exchange studies • Selected coursework: turbulent flows; Advanced CFD methods; computational methods for flow, heat and mass transfer, compressible flows, economic dynamics and complexity.	Aug 2025–Aug 2026
CNC trade certificate (no. “fagbrev”) — Knarvik VGS / Radøygruppen AS • CNC machining of subsea components, basic welding, and plate working.	Aug 2018–May 2022

TECHNICAL SKILLS

Programming:	Python, R, C++
Simulation / CAD:	OpenFOAM, Fusion 360, Autodesk Inventor
Manufacturing:	CNC machining, G-code, 3D-printing, basic welding and plate work
Tools:	Git, Linux

EXPERIENCE

Summer student — Eviny Fornybar, Model Development and Analysis • Investigated reinforcement learning for optimal bidding across multiple Norwegian electricity markets as an alternative to conventional optimisation methods. • Designed and implemented an electricity market model as a custom Gymnasium environment for training reinforcement learning agents.	Jun–Aug 2026
Student consultant — SpareBank 1 Helgeland / Yobr • Analysed debt and unemployment data for an economic outlook report; wrote Python scripts to automate parts of the analysis.	Jul–Aug 2025
Course developer — Kateter • Developed online courses covering three introductory physics courses at NTNU.	Jun–Aug 2025
Student / teaching assistant — NTNU • “Teknostart” introductory programme, TDT4110: Introduction to Information Technology (Python).	Autumn 2024
Field sales representative — Stiftelsen Norsk Luftambulanse	Jun–Jul 2024
Ship technical support and military firefighter — Norwegian Navy	Jul 2022–Jul 2023

SELECTED TECHNICAL PROJECTS

Aerodynamic drag estimation of a 2D car using OpenFOAM • Set up and verified a 2D transient RANS simulation of a car geometry hovering 1 m above the road. Validated the simulation setup against reference drag coefficients for benchmark geometries in freestream conditions.
Investigating Strouhal number behind a moving cylinder • Used supplies found at home, and the open-source software “Tracker”, to induce a vortex street behind a cylinder. Got a St of approximately 0.19 (95% confidence 0.18-0.26), compared to 0.21 in Roshko (1954).
TEP4175 / “Design of Wind Turbine” • Blade development using the blade element momentum (BEM) method; simple generator design, prototype construction and wind-tunnel testing.

ADDITIONAL QUALIFICATIONS AND ACTIVITIES

Extracurriculars: Secretary, Janus student association (Aug 2023–Aug 2024); main responsible for organising the matriculation ball for over 350 participants in autumn 2024.

Award: County champion in manual machining (National championship cancelled due to covid), 2020.

Certifications: Marine engine-room duty (issued Jul 2023); GSO / IMO 50 (to Oct 2027); hot works (valid to Jul 2028).

Languages: Norwegian — native; English — full professional proficiency; German — A2.

Interests: Dancing (different swing styles, Cuban Salsa ect.), climbing.