

CONTACT

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Location
Lappeenranta, Finland
Open to relocating within
Finland

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SKILLS

Engineering
Energy systems, thermal engineering, fluid engineering, turbomachinery, testing and instrumentation, optimisation

Modelling and simulation
CFD (Cadence Fidelity), process simulation (OpenModelica), dynamic system modelling, data analysis (Python, pandas)

Programming and computing
Python, MATLAB, automation and control systems (Beckhoff TwinCAT), Linux, HPC, Slurm

LANGUAGES
Finnish — native
English — fluent
Swedish — basic

Aleksi Lehtomäki

Energy Engineer (MSc Tech.) / Simulation, models, analysis

Profile

Energy engineer with an MSc (Tech.) from LUT University and a solid foundation in energy systems, thermal and fluid engineering, and energy economics. In gas turbine R&D at Aurelia Turbines, my work covers CFD analysis, process modelling, test planning and data analysis, and I often develop Python-based tools to support both my own work and my colleagues'. I am familiar with Linux and HPC environments, and I write and speak fluent Finnish and English.

Experience

Simulation Engineer 2024–present

Aurelia Turbines Oy · Lappeenranta

- Gas turbine research and development at both component and system level
- Independent CFD simulations and analyses using Cadence Fidelity
- System-level process modelling and simulation in OpenModelica
- Planning of test rigs and instrumentation, and participation in testing
- Analysis of simulation and test data to validate models and verify performance
- Development of Python tools that automate workflows and speed up analysis
- Close collaboration with mechanical, electrical and test teams

Master's Thesis Student 9/2023–2/2024

Aurelia Turbines Oy · Lappeenranta

- Built a dynamic system model of the company's gas turbine in OpenModelica as the foundation for a digital twin
- Developed Python middleware as the interface between the FMU-exported model and the Beckhoff TwinCAT automation system (ADS)
- First application: testing the turbine's automation software virtually during development

English–Finnish Translator 2018–2025

Self-employed

- Technical and commercial translation across a wide range of fields
- Independent management of B2B client relationships, sales and project delivery
- Accounting and other aspects of running the business
- Other written content, including marketing copy and SEO texts

Education

MSc (Tech.), Energy Technology: Bioenergy Systems 2016–2024

LUT University · Lappeenranta

Master's thesis: Digital twin model for a gas turbine (commissioned by Aurelia Turbines Oy)

The major covered the energy chain from fuels to heat and power: energy systems, bioenergy technology, power plant design, steam boilers, fluid machinery and energy economics.

Minor in electrical engineering in the BSc degree; MSc completed with an extended major.