

# Luca Lewin

MATHEMATICIAN · SOFTWARE DEVELOPER

Magistratsvägen 55B 1323, 22644 Lund, Sweden

📅 December 12, 2003 📞 +46 763365230 ✉ contact@lucalewin.dev 🏠 https://lucalewin.dev 🌐 lucalewin 🌐 Luca Lewin

## Summary

Dedicated Mathematics student pursuing a Bachelor's degree at Lund University. Originally from Germany, I earned distinction in my Abitur, specializing in Mathematics, Physics, and Chemistry. Currently specializing in Numerical Analysis, I bring eight years of self-taught programming experience (Java, C#, C, Python, Rust), excelling in software development. Committed to advancing mathematical discourse, I'm working on a rigorous mathematics database and search website. Beyond academics, I find joy in bouldering and ballroom dancing.

## Experience

### Enercon GmbH

Aurich, Germany

INTERNSHIP

June 2024 - August 2024

- Created and ran simulations of bending of windmill blades
- Extracted and analyzed data from finished simulations.
- Created Python tools to generate new simulation setups depending on the results from the simulation data analysis

## Education

### Lund University

Lund, Sweden

B.SC. IN MATHEMATICS

August 2023 - present

- Studying mathematics with a specialization in numerical analysis.
- Coursework:
  - Analysis: Real Analysis, Multivariable Analysis
  - Linear Algebra
  - Numerical Analysis: Numerical Linear Algebra and Numerical Analysis with Python (numpy, scipy, ...)
  - Physics: Mechanics, Electromagnetism (up next: Quantum Mechanics and Optics)

### KGS Wiesmoor

Wiesmoor, Germany

ABITUR

2021 - 2023

- Focused on Mathematics, Physics and Chemistry as Leistungskurse (advanced courses).
- Additionally focused on Politics and Economy, as well as English as Grundkurse (basic courses).
- Honored with the Mathematics Award.

## Projects

### Programming Language Compiler

🌐 lucalewin/luvascript-compiler

COMPILER FOR A CUSTOM PROGRAMMING LANGUAGE

May 2021 - Present

- Developed a C-based compiler for a personal programming language.
- Implemented lexical analysis, syntax parsing and code generation.
- Learned x86-assembly to translate high-level language code into executable machine code.

### Password Manager

🌐 lucalewin/vault

PERSONAL PASSWORD MANAGER

Sep. 2019 - Present

- Designed and implemented a password manager in Rust with a frontend in Vue.js.
- This project combines many areas like cryptography, SQL databases, REST apis and frontend design.

## Skills

**Progr. Languages** Rust, Python, C, Assembly, Java, C#, TypeScript

**Spoken Languages** English, German (native), Spanish (basic), Swedish (learning)

**Tools** VS Code, Terminal, SQL, Docker, Linux