

Sigurður Marteinn Lyngberg Sigurðsson

Software Engineer and Physicist

@ mattipatti1998@gmail.com theTastyWizard Sigurður Marteinn Lyngberg Sigurðsson Reykjavík, Iceland

Software engineer and physisist with 5 years of experience and a strong foundation in computer science, skilled in developing software for innovative industries. Proficient in JavaScript/TypeScript, Python, and C/C++, with a solid understanding of system architecture and design principles.

Experience

Computational Assistant

Eðlisvísindastofnun, Raunvísindastofnun Háskólans - Reiknifræðistofa

Mai 2024 – August 2024 Reykjavík, Iceland

- Using Lyapunov functions to solve switched discrete time systems by linear programming
- Research to test solutions on varied problems
- Numerical methods to make mathematical models for engineering systems
- Modeling linear systems

Data Analyst

Hagstofan - Próunarsvið

April 2023 – August 2023 Reykjavík, Iceland

- NSN project to standardize data on public grants to cultural projects
- Data Analysis and cleaning
- Python og SQL.
- Database setup
- Data Analysis and visualization
- Making official reports ready for publishing

Other

Reverse Engineering and Malware Analysis

Masters course in Háskóli Reykjavíkur/ University of Reykjavík.

- Malware analysis for windows dll and exe files.
- Ability to analyse and conclusively say if a file is malicious or not using static analysis methods.
- Dynamic analysis in an isolated environment leading to knowledge of changes caused by malware.
- Debugging assembly to analyse the inner working of malware.

Presentation at Frostbyte labs cybersecurity workshop

Presented my project "Vulnerabilities and exploitation of RFID identification cards" with an example intrusion showcase.

- Physical penetration testing
- Cryptographic analysis
- Information sharing through presentation

Education

Háskóli Íslands / University of Iceland

2020 - 2024 Reykjavík, Iceland

B.Sc. in Physics

Háskóli Íslands / University of Iceland

2024 - 2025 Reykjavík, Iceland

B.Sc. in Computer Science

Technical Expertise

C	<div><div></div></div>
C++	<div><div></div></div>
SQL	<div><div></div></div>
Fortran	<div><div></div></div>
Python	<div><div></div></div>
Java	<div><div></div></div>
Lua	<div><div></div></div>
Haskell	<div><div></div></div>
Scheme	<div><div></div></div>
Bash	<div><div></div></div>
Assembly	<div><div></div></div>

Skills

- Excellent mathematical and physics skill set
- Varied problem solving abilities
- Perseverance to solve complex problems
- Software engineering experience with larger projects
- Management of Linux systems
- Linux system penetration testing
- Malware analysis and reverse engineering
- Scientific data analysis
- Complex mathematical model making

Methodology/Approach

Design Thinking • Test-Driven Development • Agile • Design patterns

Tools

Linux • Git • Docker • Make • Neovim • Regex • CLI workflows • Github • Assembly debugging