

# Sævar Örn Einarsson

MECHANICAL ENGINEER M.Sc.

Born March 12th, 1992 in Reykjavík, Iceland

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**Mechanical Engineer specializing in Product Design and Development, looking to develop sustainable solutions**

## Work Experience

### Vélavöktun ehf.

Reykjavík, Iceland

FOUNDER, CEO

Jun 2020 - Present

- A new business supplying high tech products that monitor high value assets
- Increases sustainability for customers by protecting their investments using live GPS tracking and status feedback
- Solutions that optimize workflow, ensure maximum yield, and automate supervision by maintenance scheduling

### Valka ehf.

Kópavogur, Iceland

MECHANICAL DESIGNER

Jun 2018 - May 2020

- A local, growing tech company developing complete solutions for fisheries production, maximizing yield
- Responsibilities included design and testing of fish processing systems for sales orders, product maintenance or development projects
- Design projects included custom conveyor belts, a wide variety of dynamic weighing products and automatic frozen fish grading units
- FEM analysis using Solidworks, interdisciplinary collaboration in product development, testing and layout optimization

### Össur Corp.

Reykjavík, Iceland

AUTUMN TERM INTERN

Aug. - Nov. 2015

- A leading global non invasive prosthetics developer with corporate HQ in Iceland
- Worked with a lead prosthetic department designer on implementing a new production line and optimizing the product quality
- Practical prosthetic development work along with prototype building for a functional surfer's foot

### Stálvélar ltd.

Reykjavík, Iceland

PART TIME DISTRIBUTION & SERVICE

2012 - 2016

- Support work for a business supplying electro-chemical systems for suppressing marine biofouling

## Skills

**Languages** Fluent in English and Icelandic (mother tongue). Conversational in Italian, basic German knowledge

**CAD** High level of practical experience in the use of CAD programs such as Solidworks and PDM, Autodesk Inventor & AutoCad, CNC mill programming, Solid Edge and ANSYS stress analysis

**Data work** Proficient with reports and data presentation via LaTeX, C++ programming, LabView, Matlab, and Arduino as well as Microsoft Office Excel, Word and PowerPoint. Can solve a Rubik's cube in under 2 minutes.

## Education

### Massachusetts Institute of Technology

Online from Reykjavík, Iceland

PRINCIPLES OF MANUFACTURING

Oct. 2020 - Present

- A specialized MicroMasters program counting towards a graduate degree in Production Engineering
- Courses include Manufacturing Systems, Supply Chain Management, and Strategic Leadership

### Reykjavík University

Reykjavík, Iceland

M.Sc. MECHANICAL ENGINEERING

Aug. 2017 - Dec. 2018

- Courses taken include Precision Machine Design, Finite Element Analysis, Geothermal Drilling, Power Plant Design and Wind Power
- Received a Dean's selection grant for excellent academic achievement. GPA: 9.0/10.0
- M.Sc. Thesis project involved the redesign and testing of a small-scale, high-throughput dynamic scale unit

## Reykjavík University

B.A.Sc. APPLIED MECHANICAL ENGINEERING

Reykjavík, Iceland

Aug. 2012 - Aug. 2016

- Received an Incoming student Scholarship for excellent academic achievement
- Various extra courses taken including C++ Programming, Numerical Analysis and CAD
- Exchange semester to Bologna, Italy, the spring of 2014. Courses included Automatic Machines & CAD.
- B.Sc. thesis project researching the degradation of Shape Memory Alloy (SMA) springs when electronically actuated. GPA: 8.1/10.0.

## University of Bologna

EXCHANGE SEMESTER IN MECHANICAL ENGINEERING

Bologna, Italy

Jan. - Jun. 2014

- Received an Erasmus Exchange student Scholarship
- Attended Erasmus Intensive Language Course (EILC) for one month in Venice
- Courses included Automatic Machines & CAD

## Extracurricular

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### The Icelandic University Choir

BOARD MEMBER & PRESIDENT

Reykjavík, Iceland

2012 - 2016

- Managed choral board; Organizing performances and trip logistics as board member & president

### Technis, Student's association

EVENT MANAGER

Reykjavík, Iceland

Aug. - Dec. 2013

- Planning of events for students in Engineering department and Preliminary studies

## Publications

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### Thesis project for Mechanical Engineering M.Sc.

AUTHOR

Reykjavík, Iceland

Mar. 2019

- S. Ö. Einarsson, "Development of a dynamic multi-belt scale for IQF sorting", M.Sc. Thesis, University of Reykjavík, 2019. Abstract available at: <http://hdl.handle.net/1946/34041>
- Redesign and testing of a smaller, high throughput dynamic scale for weighing 150 frozen fish pieces per minute
  - Produced data to show error distribution in weighing individual pieces of frozen fish

### International Conference on Axiomatic Design

CO-AUTHOR

Xi'an, China

Sep. 2016

- J. Guls, Ó. I. Bjarnason, Ó. Pétursson, S. Ö. Einarsson, and J. T. Foley, "Application of Axiomatic Design in designing Autonomous Underwater photography lighting", *International Conference on Axiomatic Design*, 2016
- Analysis and redesign of underwater lighting system to be compatible with full color, fast exposure images

### Thesis project for Mechanical Engineering B.Sc.

AUTHOR

Reykjavík, Iceland

Aug. 2016

- S. Ö. Einarsson, "Degradation of NiTi springs through electronic actuation", B.Sc. Thesis, University of Reykjavík, 2016. Available at: <http://hdl.handle.net/1946/26099>
- Development of an automatic Shape Memory Alloy testing frame capable of 10.000+ actuation cycles
  - Production of data to predict cyclic actuation tolerance of NiTi actuator springs

## References

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### Joseph T. Foley

ASSISTANT PROFESSOR

Reykjavík, Iceland

Feb. 2017

"Sævar is very devoted to the tasks he is given. He either gives something his complete focus or does not commit to do it in the first place. He also has a good feel for the scope of a problem: when to decompose it into smaller pieces and when to stop trying to refine it further. He works well in a variety of teams. He doesn't jump to conclusions and is a good listener to even seemingly crazy ideas. Sævar is a well-rounded, capable researcher.

I was the advisor for Sævar's Bachelor [sic] thesis. [...] he designed and built a modular SMA spring testing system using low cost materials and employing Axiomatic Design principles. His work was exemplary and he got the highest grade I have ever seen on a BSc at his evaluation."