

## Hallgrímur Davíð Egilsson

Reykjavík, Iceland

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## Work experience

summer 2017 - now

### **Computer Scientist - DevOps**

Svarmi

*Focusing on Systems Architecture and DevOps for maximum scalability of Myriad. A network of self-chargeable drones deployable to industrial areas for frequent deliveries of processed aerial data. AWS, Docker, Kubernetes, OpenVPN, Bind9, CI/CD, TDD, GitLab, Python, Bash, Read the Docs*

summer 2015 - summer 2017

### **Computer Scientist - Engineer**

Svarmi

*Working on a proof-of-concept of Myriad.  
Linux, ROS, Python, Bash, C++, Ardupilot, Git, Jira*

autumn 2016

### **Teaching assistant - Discrete mathematics**

University of Iceland

*Weekly workshops with computer science students. Grading of homework.  
Basics in discrete mathematics*

autumn 2014 - autumn 2015

### **Teaching assistant - Computer Science 1A**

University of Iceland

*Weekly workshops with engineering students. Grading of homework.  
Basics in programming*

## Education

autumn 2016 - spring 2017

### **B.Sc. Computer Science**

University of Iceland

*Analysis of Algorithms, Theory of Computation, Discrete Mathematics, Functional Programming, Nonlinear Optimization, Software Development, Web Programming, Computer Graphics, Assembly, Operating Systems.*

autumn 2013 - spring 2016

### **B.Sc. Mechanical Engineering**

University of Iceland

*Differential Equations, Physics, Probability, Statistics, Numerical Analysis, Linear Algebra, Control Systems, Fluid Mechanics, Chemistry, Vibrations, Economics Engineering, Microcomputers*

autumn 2011 - autumn 2015

### **Private Pilot**

Icelandic civil aviation administration

## Experience

autumn 2015 - summer 2016

### **Formula student: Designing and building an electric formula race car**

University of Iceland

*Designed and built the wings for the car in a team of three engineering students focusing on aerodynamics.*

autumn 2014 - spring 2015

### **University of Iceland's Robot design competition**

*Participating in a team of four engineering students. My team won the competition.*

spring 2013

### **Programming competition**

*Participating in a team of three high school students. My team got second place.*

autumn 2012

### **Youth symphony orchestra of Iceland**

*Played the harp in the orchestral suite "The Planets" at the concert hall Harpa.*

Spring 2012 - summer 2013

### **Bassist/Harpist at Glundroði**

*Played in the folk rock band Glundroði. We played at a few venues and did studio recordings.*

## Projects

spring 2018 - now

### **Build Farm**

Compile & Deployment server

*Compiles & deploys software to Svarmi's drones. Receives source code from developers using rsync's delta-transfer algorithm and then proceeds to compile the code for Svarmi's drones environment and CPU architecture.*

*Python, CMake, ROS, Rsync, Socket Programming, Pytest*

autumn 2017 - now

### **ROS VPN & DNS**

Encapsulating Svarmi's network of drones

*The VPN encapsulates Svarmi's ROS system with AES-256 encryption and the DNS allows drones and servers to talk to each other using hostnames.*

*AWS, OpenVPN, Bind9, Linux, ROS, Bash*

summer 2016 - now

## **GESTOS**

Svarmi's on-board drone software

*The soul of Svarmi's drones. Has a state machine, does CV calculations at 100 FPS, communicates to servers, streams data through 4G network connection, etc.*

*Linux, GPU, ROS, C++, Google Test*

## **Programming**

Experiments & mini projects

*Link: <https://github.com/hallgrimur1471/programming>*

*Algorithms, Cryptography, Haskell, Google Code Jam, Advent of code, Machine Learning, C, Scheme, Python, Projecteuler.net (56 problems), Pwnable.kr (6 problems)*

## **Autolock**

Automatically lock/unlock car by proximity

*Link: <https://github.com/hallgrimur1471/autolock>*

*C++, Bluetooth LE, RSSI*

## **Asteroids in 3D**

Playable in a browser

*Link: <https://github.com/hallgrimur1471/asteroids-3d>*

*Javascript, WebGL*

## **Map Image Marker**

Automatically places uploaded geo-tagged images on map

*Link: <https://github.com/hallgrimur1471/mim>*

*Exif data, Javascript, Node.js, Leaflet*

## **Gran Turismo Lap-time logger**

Logs laptimes by analyzing a twitch.tv video stream

*Link: [https://github.com/hallgrimur1471/gran\\_turismo\\_datalogger](https://github.com/hallgrimur1471/gran_turismo_datalogger)*

*Image analysis (text recognition, etc.), Selenium, Python*

# Languages

English

Icelandic (native)