Hallgrímur Davíð Egilsson

Computer Scientist
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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 at the concert hall Harpa in the suite "The Planets" by Gustav Holst.

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

summer 2016 - now
Gran Turismo Lap-time logger
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.
Image analysis (text recognition, etc.), Selenium, Python

Languages

English
Icelandic (native)