

# Attila Nagy

## CONTACT

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*GitHub* <https://github.com/NagyAttila>

## INTRODUCTION

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I have a background in telecommunication, automotive industry and machine learning. In the recent years, I mostly worked with Global Navigation Satellite Systems and dead reckoning for positioning. Before that I worked at PacketCore at Ericsson, with adaptive spoilers for the heavy truck industry to lower fuel consumption and self-driving cars at Volvo Cars in Active-Safety.

My technical interest mostly rotates around open-source software, cryptography, Linux, machine and deep learning. In my working environment, I tend to be social and discuss books and podcasts I read and listened recently.

## WORK

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### Coconut Island, Consultant at Volvo Cars

09/2021 – Now

*Software Developer, Sweden, Full-time*

*Roles:* SW Developer and Tester  
*Programming:* C++, Python  
*Applications:* Positioning, Dead Reckoning

### HiQ, Consultant at Ericsson

04/2020 – 09/2021

*Software Developer, Sweden, Full-time*

*Roles:* Functional Tester, System Tester, DevOps  
*Programming:* C++, TTCN  
*Applications:* LTE, PacketCore

### RumbleStrip

09/2017 – 10/2019

*Software Architect and Developer, Sweden, Full-time*

*Roles:* SW Architect, Algorithm Developer  
*Programming:* Python, C, Matlab  
*Applications:* Adaptive Roof-Deflector, Data-Analysis

### ÅF, Consultant at Volvo Cars

07/2014 – 07/2016

*Self-Driving Car Engineering, Sweden, Full-time*

*Roles:* Self-Driving Car Developer, Unit Tester  
*Programming:* Matlab, Simulink, Python, C++  
*Applications:* Active-Safety, Data-Analysis, Sensor-Fusion, Mapping, Logging

### Nokia Siemens Networks

08/2009 – 08/2012

*Software Engineer, Hungary, Full-time*

*Roles:* Scrum Master, Functional Tester, Unit Tester, DevOps  
*Programming:* C/C++, Python, Perl, BASH, TNSDL, LDAP  
*Debugging:* GDB, Valgrind, oProfile

## EDUCATION

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### freeCodeCamp Certificates

[www.freecodecamp.org](http://www.freecodecamp.org)

01/2020 – 03/2020

Certificate 1: Responsive Web Design [\[Link To Certificate\]](#)

Certificate 2: JavaScript Algorithms and Data Structures [\[Link To Certificate\]](#)

Certificate 3: Front End Libraries [\[Link To Certificate\]](#)

Content: React, Redux, Bootstrap, jQuery, CSS, SASS, AJAX, JavaScript

### Udacity Deep Learning Nanodegree

[www.udacity.com](http://www.udacity.com)

01/2017 – 06/2017

Assignment 1: Vanilla Neural Network from scratch

Assignment 2: Image Classification by Convolutional Neural Network

Assignment 3: TV script generation by Recurrent Neural Network

Assignment 4: Language-translation by Recurrent Neural Network

Assignment 5: Face image generation by Generative Adversarial Networks

[\[Link To Source Code\]](#) [\[Link To Certificate\]](#)

### MSc. Computer Science

*Gothenburg University, Sweden*

09/2012 – 04/2014

Specialization: Distributed Systems and Networks

Thesis' Title: Energy Efficient, High-speed Communication in Wireless Sensor Networks

Thesis' Keywords: Opportunistic Routing, Bulk-transfer, TinyOS, nesC

Student Project: Carolo Cup, Germany, self-driving miniature cars, team leader

Research Project: Power consumption disaggregation and classification with SVM

[\[Link To Diploma\]](#)

### ERASMUS Scholarship

*University of Applied Sciences Ravensburg-Weingarten, Germany*

09/2008 – 01/2009

Field: Embedded Systems

### BSc. Electrical Engineering

*Obuda University, Hungary*

09/2004 – 06/2009

Specialization: Embedded Systems

Thesis' Title: Robot Simulation in OpenGL Environment

Thesis' Keywords: Industrial robot simulation, OpenGL, C++.

Student Project: Remote-controlled miniature car via bluetooth, 8-bit Atmega micro-controller

## LANGUAGES

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English  
Swedish  
Hungarian

## INTEREST

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*Technical:* machine learning  
free/open-source software  
functional programming

*Sports:* rock climbing  
running  
yoga

## PROJECTS

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### Coconut Island, Consultant at Volvo Cars

09/2021 – Now

Currently, I am working with Positioning in Infotainment at Volvo Cars. The challenge on this assignment is to design a scaleable solution that can satisfy the needs of multiple markets and product variants at the same time in a flexible way. The every day tools I am using on this assignment are Git, Gerrit, Android, C++ and Python. My roll involves both SW and HW testing, functional development and maintenance of legacy products on multiple ECUs in the car.

### HiQ, Consultant at Ericsson

04/2020 – 9/2021

After 10 years I was back in Telecom working on the next generation of telecommunication networks. Most of my work involved development on the PacketCore network, Functional Testing using TTCN and System Tests.

### RumbleStrip

09/2017 – 10/2019

In this project, I mostly worked with a Bayesian Regression model for predicting the optimal position of the roof-deflector on Volvo Trucks. But earlier at the proof of concept stage we experimented with a variant of K-Nearest-Neighbour algorithm, Decision Trees and Deep Neural Networks. At the end, due to the lack of available data and limitations in our product's HW, we decided to use a Bayesian Regression model. Sensor data was collected using Python on a RaspberryPi, stored in AWS, and evaluated in Matlab. Later, our model was prototyped in an embedded environment on a STM32 board and field tested using LINAK-LA32 actuators.

### ÅF, Consultant at Volvo Cars

07/2014 – 07/2016

I worked as a SW developer in Active Safety in the Sensor Fusion team using Matlab and Simulink. My work mostly involved post-processing of sensory data for our particle filter algorithm, that fused our positions from the GPS sensor and the IMU.

### Nokia Siemens Networks

08/2009 – 08/2012

As part of the HLR and DXA teams for 3G development, I worked in a cross-functional team, doing testing, coding and maintenance using C++ and Python.