

# Attila Nagy

## CONTACT

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| <i>GitHub</i> | <a href="https://github.com/NagyAttila">https://github.com/NagyAttila</a> |

## INTRODUCTION

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I have a background in telecommunication, automotive industry and machine learning. In the recent years I have developed an interest in deep learning through self-studies, that led to my previous job at RumbleStrip. We worked on adaptive spoilers for the heavy truck industry to lower fuel consumption. Before that, I worked with self-driving cars at Volvo Cars in Active-Safety, and with 3G networks at Nokia Siemens Networks in Budapest. Currently I am working on PacketCore at Ericsson.

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

My current greatest endeavour is to start my own company and work as a freelancer.

## WORK

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### HiQ, Consultant at Ericsson

04/2020 – Now

*Software Developer, Sweden, Full-time*

|                      |  |
|----------------------|--|
| <i>Roles:</i>        | Functional Tester, System Tester, DevOps |
| <i>Programming:</i>  | C++, TTCN                                |
| <i>Applications:</i> | LTE, PacketCore                          |

### RumbleStrip

09/2017 – 10/2019

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

|                      |  |
|----------------------|--|
| <i>Roles:</i>        | SW Architect, Algorithm Developer      |
| <i>Programming:</i>  | Python, C, Matlab                      |
| <i>Applications:</i> | Adaptive Roof-Deflector, Data-Analysis |

### ÅF, Consultant at Volvo Cars

07/2014 – 07/2016

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

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

### Nokia Siemens Networks

08/2009 – 08/2012

*Software Engineer, Hungary, Full-time*

|                     |  |
|---------------------|--|
| <i>Roles:</i>       | Scrum Master, Functional Tester, Unit Tester, DevOps |
| <i>Programming:</i> | C/C++, Python, Perl, BASH, TNSDL, LDAP               |
| <i>Debugging:</i>   | GDB, Valgrind, oProfile                              |

## EDUCATION

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### freeCodeCamp Certificates

*www.freecodecamp.org*

01/2020 – 03/2020

Certificate 1: Responsive Web Design [Link]

Certificate 2: JavaScript Algorithms and Data Structures [Link]

Certificate 3: Front End Libraries [Link]

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

### Udacity Deep Learning Nanodegree

*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  
blockchain technology  
functional programming

*Sports:* rock climbing  
slacklining  
running  
yoga

## PROJECTS

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### HiQ, Consultant at Ericsson

04/2020 – Now

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

### RumbleStrip

09/2017 – 10/2019

Working with adaptive roof-deflectors for trucks using machine learning, AWS and embedded systems to lower fuel consumption. Mostly worked with a Bayesian Regression model for predicting the optimal position of the roof- deflector. 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 on Volvo trucks.

### 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.

## REFERENCES

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### Milad Pouyanmehr

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*From:* RumbleStrip

### David Andersson

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*From:* Volvo Cars