# ARASH DARAKHSH

Machine Learning Engineer / Data Scientist / Software Developer Chalmers Graduate - M.Sc. Complex Adaptive Systems

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Personal Website

## About me

Physicist and programmer with a big interest in machine learning and automotive engineering. My biggest strengths are computer vision (CV) and natural language processing (NLP). Problem solver, technology nerd, chess enthusiast and avid Formula-1 fan.

# Work Experience

#### Associate Research Engineer & M. Thesis

**GKN Aerospace Sweden AB** 

- **a** January 2023 October 2024
- Trollhättan, Sweden
- Python, PyTorch, openCV, Scikit-learn
- Deep Learning & Computer Vision
- Full pipeline in developing deep learning models (CNN & Transformer) for industrial applications

#### Summer Job - Software Developer

**GKN Aerospace Sweden AB** 

Summer 2023

- Trollhättan, Sweden
- · Continuous integration of ML models

#### Summer Job - Assistant Plumber (VVS)

Kungälvs rörläggeri AB

- Construction from schematic drawings
- Installation of radiators, drainage systems, bathrooms, heat pumps, water pipes etc.

# Education (4.4/5.0 GPA)

#### M.Sc. Complex Adaptive Systems - MPCAS

Chalmers tekniska högskola

**2021-2023** 

- Gothenburg, Sweden
- Topics: Deep learning, computer vision, neural networks, statistics, optimization, data structures & algorithms. Master's Thesis

#### B.Sc. Engineering Physics - TKTFY

Chalmers tekniska högskola

**2018-2021** 

- Gothenburg, Sweden
- Topics: Mathematical analysis, theoretical physics, experimental physics, programming and statistics. Bachelor's Thesis

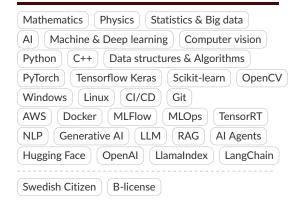
## Portfolio / Hobby projects

- RST Road Segmentation Tool
- ADAS U-Net road segmentation
- ACL Autonomous Active Learning
- C-GEMM C++ General Matrix Multiplication

# **Programming**

Language	Experience
Python	Deep/Machine learning, data science, applications, personal projects and master thesis.
C/C++	Algorithms, memory management, GPU (openCL), vector intrinsics optimization and high performance computing (HPC).
Matlab	Computational physics, Simulink, numerical simula- tions and statistics.
MySQL/SQLite3	Data tabulation, online bot user logging and querying. Vector database for word embeddings.
LabVIEW	Experimental physics and sensor acquisition.

## **Skills & Merits**



### Languages

Swedish	Fluent, Native (citizen)	
English	Fluent, B2	
French	A2	

## Relevant courses

Complete Course List

Algorithms For Machine Learning and Inference

Machine Learning for Natural Language Processing

Statistical Learning for Big Data

Data Structures and Algorithms

Artificial Neural Networks

**High Performance Computing** 

**Image Processing**