





# ARASH DARAKHSH


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


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 Arash-Darakhsh

 Darakhsh1999

 arashdarakhsh

 Personal Website

 Gothenburg, Sweden

## 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

 January 2023 - December 2024


 Trollhättan, Sweden

- Python, PyTorch, openCV, Scikit-learn
- Deep Learning & Computer Vision
- Full pipeline in developing deep learning models (CNN & Transformers) 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)

Kungälv's rörläggeri AB

 5 summer breaks during 2014-2021

 Gothenburg, Sweden

- 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 projects </>

-  |  OpenAI GPT2 from scratch
-  |  Road Segmentation Tool
-  |  ADAS U-Net road segmentation
-  |  Autonomous Active Learning
-  |  General Matrix Multiplication

## Programming

Language	Experience
Python	Deep/Machine learning, data science, data visualization, statistics, applications, APIs and personal projects.
C/C++	Algorithms, memory management, GPU (openCL), vector intrinsics, optimization and high performance computing (HPC).
Matlab	Computational physics, Simulink, numerical simulations and statistics.
MySQL/SQLite3	Data tabulation, vector DB, online bot user logging and querying.
LabVIEW	Experimental physics and sensor acquisition.

## Skills & Merits

Mathematics

Physics

Statistics & Big data

AI

Machine & Deep learning

Computer vision

Python

C++

Data structures & Algorithms

PyTorch

Tensorflow Keras

Scikit-learn

OpenCV

Windows

Linux

CI/CD

Git

AWS

Docker

MLFlow

MLOps

TensorRT

FastAPI

MCP API

REST API

NLP

Generative AI

LLM

RAG

AI Agents

Hugging Face

LlamaIndex

LangChain

OpenAI API

Swedish Citizen

B-license

## 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
Artificial Neural Networks
High Performance Computing
Image Processing