

# ARASH DARAKHSH

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

@ darakrash@protonmail.com    Arash-Darakhsh    Darakhsh1999    Personal Website    Gothenburg, Sweden

## ABOUT ME

Physicist and programmer with a big interest in machine learning and automotive engineering. Problem solver, technology nerd, chess enthusiast and avid Formula-1 fan.

## WORK EXPERIENCE

### Associate Research Engineer

GKN Aerospace Sweden AB

2024, March-October    Trollhättan, Sweden

- Python, PyTorch, openCV, Scikit-learn
- Deep Learning & Computer Vision
- Full pipeline in developing deep learning models for industrial applications

### Summer Job - Software Developer

GKN Aerospace Sweden AB

2023, June-July    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, statistics
- Bachelor's Thesis

## PORTFOLIO / HOBBY PROJECTS

- RST - Road Segmentation Tool
- ACL - Autonomous Active Learning
- Stochtimizer - Stochastic Optimization Library
- 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 and high performance computing (HPC).
Matlab	Computational physics, numerical simulations and statistics.
MySQL/SQLite3	Data tabulation, online bot user logging and querying.
LabVIEW	Experimental physics and sensor acquisition.

## SKILLS & MERITS

Mathematics

Physics

Statistics & Big data

AI

Machine learning

Deep learning

PyTorch

Tensorflow Keras

Scikit-learn

OpenCV

Computer vision

Data structures & Algorithms

NLP

LLM

RAG

CI/CD

Git

Docker

MLflow

MLOps

Windows

Linux

Powerpoint

Excel

Electronics & EM

Experimental physics

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
Advanced Machine Learning with Neural Networks
Machine Learning for Natural Language Processing
Mathematical statistics
Statistical Learning for Big Data
Data Structures and Algorithms
Artificial Neural Networks
High Performance Computing
Image Processing
Stochastic Optimization Algorithms