

ARASH DARAKHSH

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

@ darakrash@protonmail.com Arash-Darakhsh Darakhsh1999 k arashdarakhsh 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 & M. Thesis

GKN Aerospace Sweden AB

📅 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)

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
- 🔗 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, 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 & Deep learning
- Computer vision
- Python
- C++
- Data structures & Algorithms
- PyTorch
- Tensorflow Keras
- Scikit-learn
- OpenCV
- AWS
- Docker
- MLFlow
- MLOps
- Windows
- Linux
- CI/CD
- Git
- NLP
- LLM
- RAG
- Hugging Face
- Optics
- Camera physics
- Linear algebra & Geometry
- 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
- Machine Learning for Natural Language Processing
- Statistical Learning for Big Data
- Data Structures and Algorithms
- Artificial Neural Networks
- High Performance Computing
- Image Processing