ARASH DARAKHSH

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

@ darakrash@protonmail.com in 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 (CNN & Transformer) 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)

Kungälvs 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, 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 learning Deep learning
PyTorch Tensorflow Keras Scikit-learn OpenCV
Computer vision Data structures & Algorithms
CI/CD Git AWS Docker MLFlow MLOps
Windows Linux
NLP LLM RAG
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
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