

# ARASH DARAKHSH

Chalmers Graduate - M.Sc. Complex Adaptive Systems

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## EDUCATION

### 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

## WORK EXPERIENCE

### Associate Research Engineer

GKN Aerospace Sweden AB

2024, March-October    Trollhättan, Sweden

- 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 - 5 weeks    Trollhättan, Sweden

- Continuous integration of ML models

### Summer Job - Assistant Plumber (VVS)

Kungälv's rörlägeri AB

5 summers during 2014-2021    Gothenburg, Sweden

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

## HOBBY PROJECTS

- RST - Road Segmentation Tool
- ACL - Autonomous Active Learning
- Stochtimizer - Stochastic Optimization Library
- C-GEMM - C++ General Matrix Multiplication

## PROGRAMMING

Language	Experience
Python	Personal projects, machine learning and master thesis.
C/C++	Memory management and high performance computing (HPC).
Matlab	Computational physics, numerical simulations and statistics.
MySQL/SQLite3	Basics of data tabulation, online bot user logging and querying.
Java	Introduction to programming and object oriented programming.
LabVIEW	Experimental physics and sensor acquisition.

## SKILLS

- Mathematics    Physics    Statistics
- Machine learning    Deep learning
- PyTorch    Tensorflow Keras    Scikit-learn    OpenCV
- ML    CV    NLP    HPC    Big data
- Docker    MIFlow    MLOps
- Windows    Linux    Vim    LaTeX    Git
- Electronics & EM    Experimental physics
- B-license

## LANGUAGES

Swedish    Fluent, Native

English    Fluent, B2

French    A2

## RELEVANT COURSES

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