

Morteza Montahae | Resume

- › **Status:** B.Sc. in Applied Mathematics and Computer Science at the [FH-Aachen](#) and in Mathematics at the [PNU](#)
- › **Skills:** [Java](#) (awt, exception, io, nio, util, swing, beans), C#/.Net(protobuf ([OVF](#)), Numerics, Threading, Collections), C++, Python (collections, csv, cv2, io, json, math, matplotlib, multiprocessing, networkx, numpy, os, random, scipy, shutil, seaborn(-image),skimage, sklearn, keras, tensorflow, xml.etree, zipfile), HTML, LiquidJavaScript (Node (bootstrap, express, jquery, mustache, Sequelize)), SHACL, PHP, SQL (MariaDB, MySQL), \LaTeX (BibTeX, geometry, TikZ), Vim
- › **Languages**
 - **Persian:** Native language
 - **Arabic:** Elementary
 - **German:** Advanced
 - **Englisch:** Upper Intermediate
- › **Interest:** Calculus of Variations, Differential Geometry, Data Science, Design Patterns
- › **Hobbies:** Wrestling, Football, Hiking, History, Mathematics



››› Profil

Graduate in Applied Mathematics and Computer Science and in Mathematics with completed [MATSE](#)-Apprenticeship. Practical experience in software development with a focus on [generative](#) modeling, database management, data science, and web application. Proven ability to work independently and collaborate effectively in a team. Deep interest in applying mathematical methods to solve complex and real-world problems, as well as researching and describing mathematical models and their implementation possibly according to design pattern solutions.

››› Experience

10/2019 - 08/2023 **MATSE (Apprenticeship)** DAP [RWTH](#)

- › **Worked** on the development of an [NX](#) CAD library for generating Lattice in C# using [Protobuf](#) serialization
- › **Designed** workflow management of additive processes in a UML-compliant process modeling ([IDAM](#)) with Enterprise Architect ([EA](#))
- › **Participated** in the development of research data models in Python on the [Coscine](#) platform
- › Supported MAT.TRAFFIC GmbH as part of a MATSE [project work](#) in Python: Geo-detection of intersections for intelligent traffic systems and city planning using metadata from OpenStreetMap([OSM](#))

08/2009 - 09/2019 **Additional professional activities** [NAJA](#), [Frankenberg](#), [Dachser](#), [Event Probat](#), [UB-RWTH](#)

- › Sales Assistant (Bazaar) (06/2003 - 09/2005) › Military Service (08/2009 - 02/2011)
- › Temporary Worker (07/2012 - 10/2014) › Delivery Assistant (11/2014 - 06/2015)
- › Waiter and Event Assistant (11/2014 - 09/2019) › Library Assistant (07/2016 - 09/2016)

››› Education

10/2019 - 09/2024 **Bachelor's [Degree](#) in Applied Mathematics and Computer Science** FH-Aachen

- › Focus: Linear Algebra, Stochastics, Numerics, Programming (OOP), Algorithms and Data Structures, Data Science, Databases, Software Engineering, Web and Communication Systems
- › [Bachelor's thesis](#) (on Germany): Data-driven exterior differential calculus on graphs applied to the discretization of elliptic partial differential equations

04/2011 - 09/2019 **Language Acquisition and Studies** RWTH

- › German [language acquisition](#) at the [Language Center](#) of RWTH (04/2011 - 07/2012)
- › Unfinished Mathematics M.S.c at RWTH (10/2012 - 09/2019): Participation in modules in [Image Processing](#), [Neuroscience](#), Numerics (PDE), [Optimization Theory](#), Calculus of Variations

10/2005 - 07/2009 **Bachelor's [Degree](#), in Applied Mathematics ([Note: 2.2](#))** PNU

- › Bachelor's thesis: Application of Nonlinear Conjugate Gradient Algorithms for Estimation of Electromagnetic Inversion
- › Focus: Linear Algebra, Numerical (ODE) and Mathematical Analysis, Mathematical Statistics, Graph Theory, Mathematical Models of Nature (ODE)