

MARTIN MOHAMMED

SOFTWARE ENGINEER



CONTACT

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www.martin-mohammed.info

LANGUAGES

- German | native
English | fluent
Spanish | basic

EDUCATION

- **B.Sc Informatik** | Technische Universität München
- **Abitur (Ø 1.2)** | Gerhart-Hauptmann-Schule, Germany

SKILLS

- **Programming Languages:**
C++, C#, Java Python3, JavaScript / TypeScript, Swift, Bash / Shell Scripting, ...
- **Data Science & AI / ML Tools:**
Tensorflow, Keras, Pytorch, OpenCV, Numpy, Pandas, Scipy, ETL / ELT Pipelines, Apache Spark, Roboflow, Jupyter Notebooks & Google Colab, ...
- **Robotics & Simulation**
ROS2, Gazebo, Unity, telemetry, flight-controllers, embedded software, UAV, autonomous systems, ...
- **Computer Vision**
State of the art (SOTA) Object Detection YoloV8 &, YoloNas, Object Tracking, Image Segmentation, Odometry & Visual Servoing



WHY I AM THE PERFECT FIT FOR YOUR COMPANY

I am the perfect fit for your company due to my extensive experience and diverse skill set. With **over four years of professional software development**, I have **worked with various international and well-known companies**.

My **expertise lies in Artificial Intelligence**, encompassing sub-fields like Machine Learning, Deep Learning, Reinforcement Learning, and Computer Vision. Additionally, I have specialized in **Robotics & Cloud technologies**. In my previous role at the **IBM branch in San Francisco, CA**, I was an integral part of the R&D AI Team. During my two-month tenure, I contributed to the research and development of an artificial intelligence model aimed at detecting internal system flaws.

Beyond my professional accomplishments, I have achieved academic success, including **representing my high school multiple times in national computer science & math competitions**, where I reached the podium. I completed my Abitur with an average grade of 1.2 and I am currently **pursuing my studies in Computer Science at the Technical University Munich**.

EXPERIENCE (FULL-TIME)

IT CONSULTANT FOR SOFTWARE ENGINEERING

TYTAN Technologies GmbH, Munich | Since 02/2024

- **TYTAN Technologies** innovates in deep-tech and aviation, crafting cost-effective anti-drone solutions through Robotics & AI and Computer Vision.

Worked on:

- State-of-the-art computer vision for object detection and tracking
- Enhanced UAV software architecture utilizing ROS2
- Implemented edge-device integration with platforms like Raspberry Pi and Jetson Nano
- Embedded Software for Flight Controller PX4, Micro-Controllers
- Sensor Fusion Extended Kalman Filter
- Conducted 3D simulation using Unity and Gazebo
- Utilized CAD Design and electrical engineering for hardware integration into UAV systems

IT CONSULTANT FOR DATA SCIENCE

58agents GmbH, Frankfurt am Main | Since 06/2023

- **58agents GmbH**, an IT consulting firm founded by former PwC employees.

Worked on:

- Client projects at **PricewaterhouseCoopers (PwC)** for DevOps and Machine Learning, enhancing Kubernetes resource deployment using Helm Charts and utilising (Deep) Neural Networks for regression and classification problems.
- Business Development: Established a new department for Artificial Intelligence & Machine Learning solutions to be offered to clients.
- Developed an ETL pipeline for **Horizon** and analyzed over 2 million rows of transactional data for evaluation and machine learning training.

SOFTWARE ENGINEER & PRODUCT OWNER

IBM, San Francisco, Frankfurt am Main | 03/2023 - 06/2023

- **IBM**, a global technology giant and early pioneer in computer development.

Worked on:

- Collaborated with the R & D Team for Artificial Intelligence to research and develop AI systems for detecting IT security vulnerabilities and flaws in IT systems using Big Data and Reinforcement Learning.
- Contributed to an IoT & AI project aimed at establishing a watering system for over 10,000 plants at IBM's branch in San Francisco, CA.

- Edge Computing, Microcontrollers & IoT

Nvidia Jetson Nano Orin, Raspberry Pi 4B, Raspberry Pi Pico WH, Arduino Uno R3, Arduino Nano, ESP32, Arduino Cloud, Bluetooth, WiFi, RFID, etc.

- Computer Aided Design (CAD)

Autodesk Fusion 360

- Operating Systems:

Windows, MacOs, Linux (Ubuntu, Debian, Kali Linux, Arch Linux & Kali Linux)

- Cloud technologies:

GCP, AWS, MS Azure, Kubernetes, Helm, Docker, CDK, SST, ...

- Build & CI/CD:

Gitlab CI, AWS DevOps, Github Actions, NPM, Yarn, ...

- Frontend technologies:

Angular 2+, React, Next.js, Vue, SST, LESS/SASS/SCSS, ...

- Backend technologies:

Node.js, Express.js, Django, Flask, REST API, GraphQL, Webhooks

- Database & Tools:

PostgreSQL, MongoDB, MySQL, AWS DynamoDB

- Version Control:

Git, Github, Gitlab, ...

- Methods / Paradigms:

Product Owning, DevOps, Continuous Delivery, Agile Coaching, SCRUM, Kanban

SPECIALIST

Apple, Frankfurt am Main | 01/2023 - 03/2023

- **Apple**, a multinational company renowned for its consumer products and early innovations in personal computing, mobile phones, and more.

SOFTWARE ENGINEER

Digital David AG, Frankfurt am Main | 06/2022– 01/2023

- **Digital David AG**, a subsidiary of The Digital Workforce Group, a consulting- focused holding company specializing in training young professionals for the industry.

SOFTWARE ENGINEER

IT Blox GmbH, Frankfurt am Main | 10/2020 – 06/2022

- **IT Blox GmbH**, a startup specializing in customized IT solutions for clients, founded by a former BASF employee.

CUSTOMER ADVISORY

Sparkasse, Darmstadt | 02/2018 - 03/2019

- **Sparkasse** is a retail bank offering a diverse range of products tailored to both retail clients and companies.

FURTHER QUALIFICATIONS

UNSUPERVISED LEARNING, RECOMMENDERS, REINFORCEMENT LEARNING

DeepLearning.Ai | Since 03/2024

- **DeepLearning.Ai** is an education technology company that is empowering the global workforce to build an AI-powered future through world-class education, hands-on training, and a collaborative community

+28 CERTIFICATES ON LINKEDIN

Udemy, LinkedIn Learning & Coursera

More Certificates involving Topics as:

- Data Structures & Algorithms, C++, Front-end development, back-end development, Full-stack development, Data Science, Data Analysis, AI / Machine Learning / Deep Learning, Simulation Software, DevOps & Cloud Technologies, IT-Security, etc.

ACHIEVEMENTS

HackerRank

TOP 0.5% OF 7+ MILLION USERS HACKERRANK C++ COMPETITIVE PROGRAMMING

- **HackerRank** is a programming practice platform that provides competitive challenges and tests for learning skills and preparing for technology careers.

TryHackMe

TOP 0.3% OF 2.6+ MILLION USERS TRYHACKME IT-SECURITY / ETHICAL HACKING

- **TryHackMe** is a browser-based cyber security training platform, with learning content covering all skill levels from the complete beginner to the seasoned hacker.

BWINF - National Competition for Computer Science

PODIUM OF COMPETITION - TOP 3 FINISHERS REPRESENTING HESSEN

- **BWINF** is an annual nationwide competition for students since 1980, aimed at fostering interest in computer science and promoting application-oriented thinking.



Succeeding in Web Development: Full Stack and Front End

Kurs von Martin Mohammed abgeschlossen
Okt 18, 2021 at 11:48AM UTC • 1 Stunde 3 Minuten

Top-Kenntnisse

Full-Stack-Entwicklung

Frontend-Entwicklung

A handwritten signature in black ink that reads "Darrell Boden".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: 80c4d800233c54cb0aa417175c90952713d5bd0fd40fb22a25e983275c7f4b73





Programming Foundations: Fundamentals

Kurs von Martin Mohammed abgeschlossen
Okt 17, 2021 at 09:50AM UTC • 2 Stunden 10 Minuten

Top-Kenntnisse

Programmieren

A handwritten signature in black ink that reads "Darrell Boden".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: 5e0c99461ae8bdd85e9d2e32e4d834e6d5d483f6b48c26dd1a08f5a9ec1d7b6





Programming Foundations: Databases

Kurs von Martin Mohammed abgeschlossen
Okt 18, 2021 at 10:24AM UTC • 1 Stunde 25 Minuten

Top-Kenntnisse

Datenbankentwicklung

A handwritten signature in black ink that reads "Darrell Boden".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: 0a03e3a7cff06ab8cea8d8bcccec8e3b48f4a130e5017e2e012c1cc44d3995fd



Issued on
9th October 2021



CERTIFICATE OF COMPLETION

Jon Peters, CM

Ashu Savani, CTO

Ben Spring, CEO

catF1sh

successfully completed the
Pre Security Learning Path

THM-J6S0JDR06N



Learning Python (2020)

Kurs von Martin Mohammed abgeschlossen

Okt 21, 2021 at 01:35PM UTC • 2 Stunden 27 Minuten

Top-Kenntnisse

Python (Programmiersprache)

A handwritten signature in black ink that reads "Darrell Boden".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: b5dda458dc45f91c711a9c686987b0b662c042975239cea71a245e5efe46f3c9





HTML Essential Training

Kurs von Martin Mohammed abgeschlossen

Okt 18, 2021 at 06:42PM UTC • 2 Stunden 45 Minuten

Top-Kenntnisse

HTML

A handwritten signature in black ink that reads "Darrell Boden".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: 4a07fd7dd405bfd2afc68f6db155fc25f1c742ab2156edb8ae8fce8195e4d27





Programming Foundations: Web Security

Kurs von Martin Mohammed abgeschlossen

Nov 14, 2021 at 03:18PM UTC • 2 Stunden 17 Minuten

Top-Kenntnisse

Sicherheit von Webanwendungen

A handwritten signature in black ink that reads "Darrell Boden".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: 376aac38c5f9de933846d4ee8c0c36b80cc65683e0f1c7136917a7e4774bc4f





Learning SQL Programming

Kurs von Martin Mohammed abgeschlossen
Nov 15, 2021 at 01:51PM UTC • 1 Stunde 46 Minuten

Top-Kenntnisse



A handwritten signature in black ink that reads "Darf Bodensteiner".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: 8e108859277f7e37913ff2e302cbfa6cec4c8df23f4df57d0553f1d5b02fe210





Learning Java 11

Kurs von Martin Mohammed abgeschlossen

Nov 13, 2021 at 01:33PM UTC • 2 Stunden 39 Minuten

Top-Kenntnisse



A handwritten signature in black ink that reads "Darf Bodensteiner".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: 50fe3eb2b2fd942eb5013b44fcbaeb7156b9c8ce2a502c84087a2e006438434b





Learning C#

Kurs von Martin Mohammed abgeschlossen
Nov 14, 2021 at 02:48PM UTC • 3 Stunden 5 Minuten

Top-Kenntnisse



A handwritten signature in black ink that appears to read "Darf Bodensteuer".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: 293e62617e48f827f6304a8db80140bbb5061fdf83847236fc13f639ccb8ab8a





JavaScript Essential Training

Kurs von Martin Mohammed abgeschlossen

Nov 13, 2021 at 09:53AM UTC • 5 Stunden 29 Minuten

Top-Kenntnisse

JavaScript

A handwritten signature in black ink that reads "Darrell Boden".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: 76a189ab0f7586847ec754da11cffb342924e0c00da53f618d467fdc987f75f9





CSS Essential Training

Kurs von Martin Mohammed abgeschlossen

Nov 07, 2021 at 09:42AM UTC • 4 Stunden 29 Minuten

Top-Kenntnisse

Cascading Style Sheets (CSS)

A handwritten signature in black ink that reads "Darrell Boden".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: 1e441c27ab9d967432fc30e0959820bbef9644cb6de2f0717cc67f6864dd1b0b





Become a Software Developer

Lernpfad von Martin Mohammed abgeschlossen

Nov 15, 2021 at 01:51PM UTC • 30 Stunden 23 Minuten

Top-Kenntnisse

Programmieren

Softwareentwicklung

A handwritten signature in black ink that reads "Darrell Boden".

Head of Content Strategy, LinkedIn Learning

Zertifikatsnummer: 0450f90e4c09c8b4ddd57c4e2fe469910c0f11a885b84bab5dfe993aa352ae55





Certificate no: UC-389429c2-f8ab-4b82-b622-4256b0316618

Certificate url: ude.my/UC-389429c2-f8ab-4b82-b622-4256b0316618

Reference Number: 0004

CERTIFICATE OF COMPLETION

The Complete 2022 Web Development Bootcamp

Instructors **Dr. Angela Yu**

Martin Mohammed

Date **Feb. 7, 2022**

Length **55 total hours**



Certificate no: UC-cbd1e789-5205-44db-bbc6-eb81860e5b42
Certificate url: ude.my/UC-cbd1e789-5205-44db-bbc6-eb81860e5b42
Reference Number: 0004

CERTIFICATE OF COMPLETION

Modern React with Redux

Instructors **Stephen Grider**

Martin Mohammed

Date **March 14, 2022**

Length **52.5 total hours**



Certificate no: UC-a4780bac-7a17-4dd9-94c1-c84f671c50b3
Certificate url: ude.my/UC-a4780bac-7a17-4dd9-94c1-c84f671c50b3
Reference Number: 0004

CERTIFICATE OF COMPLETION

Understanding TypeScript - 2022 Edition

Instructors **Maximilian Schwarzmüller**

Martin Mohammed

Date **May 29, 2022**

Length **15 total hours**



Certificate no: UC-ad71b9b7-7cfc-447b-b504-bbcf37737ee9
Certificate url: ude.my/UC-ad71b9b7-7cfc-447b-b504-bbcf37737ee9
Reference Number: 0004

CERTIFICATE OF COMPLETION

AWS Serverless APIs & Apps - A Complete Introduction

Instructors **Academind by Maximilian Schwarzmüller, Maximilian Schwarzmüller**

Martin Mohammed

Date **July 25, 2023**

Length **8 total hours**



Certificate no: UC-a6af70aa-3aa8-4e30-89a9-dd09862b47e5
Certificate url: ude.my/UC-a6af70aa-3aa8-4e30-89a9-dd09862b47e5
Reference Number: 0004

CERTIFICATE OF COMPLETION

Double Your Social Skills and Instantly Connect With People

Instructors **Jimmy Naraine • 370,000+ Students, Jimmy Naraine Support**

Martin Mohammad

Date **April 6, 2023**

Length **8.5 total hours**



Certificate no: UC-2a22da70-c653-4d82-860b-d4a53643d95b
Certificate url: ude.my/UC-2a22da70-c653-4d82-860b-d4a53643d95b
Reference Number: 0004

CERTIFICATE OF COMPLETION

Python Django - The Practical Guide

Instructors **Academind by Maximilian Schwarzmüller, Maximilian Schwarzmüller**

Martin Mohammed

Date **June 12, 2023**

Length **23 total hours**



Certificate no: UC-ad71b9b7-7cfc-447b-b504-bbcf37737ee9
Certificate url: ude.my/UC-ad71b9b7-7cfc-447b-b504-bbcf37737ee9
Reference Number: 0004

CERTIFICATE OF COMPLETION

AWS Serverless APIs & Apps - A Complete Introduction

Instructors **Academind by Maximilian Schwarzmüller, Maximilian Schwarzmüller**

Martin Mohammed

Date **July 25, 2023**

Length **8 total hours**



Certificate no: UC-7f4ae01d-2565-4361-8085-787870843657
Certificate url: ude.my/UC-7f4ae01d-2565-4361-8085-787870843657
Reference Number: 0004

CERTIFICATE OF COMPLETION

AWS & Typescript Masterclass - CDK V2, Serverless, React

Instructors **Alex Horea**

Martin Mohammed

Date **July 31, 2023**

Length **14 total hours**



Certificate no: UC-565e27a9-652c-4a19-8b0a-9cb4a5f2251e
Certificate url: ude.my/UC-565e27a9-652c-4a19-8b0a-9cb4a5f2251e
Reference Number: 0004

CERTIFICATE OF COMPLETION

100 Days of Code: The Complete Python Pro Bootcamp for 2023

Instructors **Dr. Angela Yu**

Martin Mohammed

Date **July 31, 2023**

Length **58 total hours**