# MARTIN MOHAMMED

## SOFTWARE ENGINEER



## CONTACT

📍 Heßstraße 96
München, 80797

✉️ martinbusiness04@gmail.com

📞 +49 179466 1350

**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, Gazeboo, 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 have had the privilege of working with various renowned international companies, as evidenced by the company logos displayed above.

Currently, I am engaged as a **freelancer with two active clients**. Firstly, I collaborate with **58agents GmbH**, an IT consultancy founded by former PwC management employees. Here, I serve as an IT consultant, specializing in software engineering. Additionally, I am involved with **Tytan Technologies**, where we spearhead innovation in deep-tech and aviation, developing cost-effective anti-drone solutions utilizing **Robotics & AI and Computer Vision**. In this capacity, I focus primarily on computer vision and machine learning models as an IT consultant for data science.

Moreover, I have a **proven track record** of excelling in acquiring new projects, effectively engaging with clients, and driving net profit growth for organizations. I firmly believe that my extensive consultancy experience and profound technological expertise make me the ideal candidate for your company.

## 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, Rasperry Pi 4B, Rasperry 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.