

# Mohammed Arebi



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## LinkedIn

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## Xing

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## Personal Profile

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A motivated undergraduate who has excellent technical, leadership and organizational skills studying in a top university, Furtwangen University of Applied Sciences in a bachelor's degree in International Business Information Systems and a resourceful and extremely motivated Data Scientist with a proven track record of solving difficult business problems which also has great experience with Programming/Software Development, Data Analytics and Machine Learning, Financial, Education and Manufacturing work environments and businesses. Utilizing my expertise in data science I have been pivotal to supporting businesses and organizations with the tools necessary to meet their goals. I like work on meaningful projects and build valuable applications in the area of machine learning. Actively Building. Always Learning.

## Professional Experience

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05.2022 – Present

### Hochschule Furtwangen, Data Scientist, Furtwangen, Germany

- Working on the KISS (Künstliche Intelligenz Service und Systeme; Artificial Intelligence Service and Systems) project at Furtwangen University of Applied Sciences

Project Link: [KISS Webpage](#)

- Creation of synthetic data for anomaly detection. Various data types/formats synthetically created such as time-series data with anomalies and drift, tabular data, and image data. All data was created using python and subsequent libraries, except synthetic image data which was created with the Blender 3D graphics tool along with its Python API (blenderpy).

- Parameterization of the synthetic data creation. Various parameters created for the synthetic data creation such as the anomalies scale, percentage, if they are in chunks, one sided, or in clusters.

- Designing and coding of a convolutional autoencoder for image anomaly detection

- Implementation of various anomaly detection algorithms such as Isolation Forest, One-Class SVM, Autoencoders, etc.

- Ongoing....

09.2021 – 03.2022

### TDK-Micronas, Data Scientist Intern, Freiburg, Germany

- Analyzing semi-conductor defect and test data using Python on Jupyter and its subsequent libraries (Pandas, NumPy, Plotly, SciPy, statsmodels, sci-kit learn, Dash, Keras, etc.) to extract insight on defects and production processes using advanced statistical methods and machine learning algorithms.

- Interactive dashboard creation and maintenance using Jupyter, Plotly and ipython widgets for engineers to visualize and analyze data.

- Enhancing and updating several data analysis notebooks using several machine learning algorithms.

- Working with Hadoop, Spark, and SQL to query data for analysis

and cleaning

- ABAP Customization on the SAP system for data transfer from SAP to Hadoop and for data manipulation
- Collaboration with the R&D department to automate chart extraction to several PowerPoint slides using python-pptx library and ipython widgets for interactivity. Adding offset calculations for several tests using floating point arithmetic.
- Developing further ETL functions from Hadoop to Python pandas.

10.2020 - 02.2021

**Furtwangen University, Professor Assistant, Furtwangen, Germany**

- Assisting IBS program professors with the hybrid technology
- Tutoring for IBS students
- Contact with students online to keep the lecture as smooth as possible, forwarding all inquiries to the professor face-to-face.
- Organizing events for IBS students.
- Semester Representative/Speaker (Semester Sprecher)

01.2019 - 07.2019

**Moodio Ltd – Data Analyst (Internship) Tripoli, Libya**

- Data analyst intern, creating dashboards and reports on Power BI. Presentation to the high-level management. Writing SQL statements for data entry and retrieval. Analyzing data with R and Python.

06.2018 - 12.2018

**Almaaref Private School – Data Management (Internship), Tripoli, Libya**

- Managing the school database on MySQL, running SQL queries on several datasets, creating, maintaining tables, ERM models and data entry and retrieval

10.2017 - 05.2018

**Talent Center – English Teacher, Tripoli, Libya**

- Teaching Elementary, Pre-Intermediate and Intermediate English at Talent Center for training and languages. (Oxford English File Curriculum).

07.2017 - 08.2017

**Sofrajee – Delivery Driver Tripoli, Libya**

- Delivery guy for Sofrajee (food delivery service) , delivering all kinds of foods and drinks to all places in Tripoli.
- Handled arrangements with restaurants and customers.

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## Academic Education

since 03/2020

**Furtwangen University, Furtwangen, Germany. Fakultät Wirtschaftsinformatik - Business Information Systems**

International Business Information Systems (IBS), Data Science and AI Specialization. B.Sc.

Bachelor of Science planned to be achieved: 07/2023

**International School of Martyrs, Tripoli, Libya**

Irish Leaving Certificate (Grade: 85%)

Activities and societies: Student Representatives Board, Teacher-Student Union, Tutoring for Elementary and Primary Students, Volunteering in emergency drills

Higher Subjects: Biology, Chemistry, Math, Physics, English, Arabic, Economics

## Languages

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English	— C2
German	— B1
Arabic	— Native Language

## Knowledge & Skills

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- Technical skills
  - Python (Pandas, NumPy, scikit-learn, matplotlib, TensorFlow, Keras, Plotly, SciPy)
  - Machine Learning
  - Data Science
  - Data Analysis
  - Data Visualization
  - Applied Statistics
  - Deep Learning
  - Power BI
  - Big Data (Hadoop, Spark)
  - Web programming/web design (HTML, CSS, JavaScript)
  - Databases (MySQL)
  - ITIL
  - R
  - SQL
  - Cloud Technologies (GCP, AWS)
  - SAP (modules FI, MM, PP, etc.)
  - MS Office (Word, Excel, PowerPoint)
  - Financial Accounting
- Social skills
  - Teamwork
  - Strong communication skills
  - Teaching skills
  - Active Listening
- Organizational skills and Competencies
  - Time management
  - Design Thinking
  - Analytical Thinking

- Problem Solving
- Highly Organized
- Adaptability
- Continuous Learning Orientation.

## Awards and Certificates

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- International School of Martyrs Tripoli, Libya Award “Principal’s List” for excellent performance
- AXELOS - ITIL 4 Foundation,
- LearnPowerBI - Microsoft Power BI,
- LinkedIn Learning - Master Python for Data Science

## Areas of Interest

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- Data Science
- Data Analytics
- Data Visualisation
- MLOps
- Big Data
- Machine Learning
- Artificial Intelligence (AI)
- Blogging

## Additional Information and Extracurricular Activity

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- Organized bake sales and bazars in my senior year and lead the student/teacher union.
- Participated in the Libyan afforestation campaign planting trees in several Libyan cities.
- Helped organize and coordinate with the school to carry out safety drills.
- Tutored younger students biology and physics in school for a few weeks.
- Participated in the world youth day in Libya, helping with preparation and activities during the event.
- Volunteering in a robotics event in Tripoli, Libya helping explain the main concept to visitors.
- Conducted a seminar at the Libyan Academy in Janzour with Talent center regarding English language history and culture.
- Volunteered as a coordinator at the annual event by ‘I am Tawfik’ to raise money for orphans.
- Design Thinking and Problem-Solving Workshops with Professor Wolfgang Grather

## Interests and Hobbies

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- Football, played for Al-Wahda club for two year (2014-2016), currently playing for VFR Voerstetten
- Table tennis
- Reading
- Weightlifting
- Chess.