

AYOUB MALEK

Electrical engineer & Software developer
I just transform theoretical knowledge into working systems.

Tunisian 27 years old

@ayoub.malek@tum.de
Ayoub Malek's blog

Munich, Germany
LinkedIn/Ayoub Malek

Github/SuperKogito

Stackoverflow/SuperKogito

FIELDS OF KNOWLEDGE

Telecommunications Speech technology Machine learning Data processing
Optimization problems Antenna measurements Indoor localization IoT systems
Signal processing Embedded security Software development ...

EXPERIENCE

Machine learning engineer Junior
Yoummday GmbH
Sep 2019 - Today Munich, Germany

- Develop an emotions recognition system to monitor clients satisfaction.
- Process & visualize huge audio data and generate a training & testing database.
- Assure speed and efficiency using a multi-processing architectures.
- Build monitoring tools for windows operating system.

Python C++ Emotions recognition Machine Learning Data augmentation
Supervised learning Deep learning Classification Multi-processing OpenCV

Software developer Working student
Yoummday GmbH
Jun 2018 - Nov 2018 Munich, Germany

- Develop a voice authentication system to detect fraudulent connections.
- Process & visualize huge audio data and generate a training & testing database.

Python Speaker authentication/Verification Unsupervised learning

INTERNSHIPS

Embedded security developer Research internship
blik GmbH
Aug 2017 - Nov 2017 Munich, Germany

- Secure communications in a sensors network (TI cc2650 sensors & RPI broker)
- Implement symmetric encryption (AES-128) and hashing algorithms (SHA-256).

Embedded security Micro-controller IoT C TI cc2650 Python
Raspberry Pi Authenticated encryption Contiki OS MbedTLS Eclipse

GUI designer & developer Engineering internship
eCARus, Technical University of Munich
Aug 2014 - Oct 2014 Munich, Germany

- Develop an informative android app & Translate the Typo3 webpages to english.
- Develop the Elektrobitt-app GUI with dual-language (EN / DE) feature.

Android java Elektrobitt Design tools Typo3 Foreign languages

ACTIVITIES AND LEADERSHIP

Founder & core developer
urlstechie
Mar 2020 - Today Online

- @urlstechie is an online project providing urls checking/ testing tools.

Continuous integration urlchecker GitHub action urlchecker Python package

Open source contributor
GitHub
Jan 2019 - Today Online

- Core developer of @spafe & @pydiogment each with more than 2k downloads.
- Various contributions to different open source projects such as: @librosa, @sphinx, etc.

Open source contribution tech development Git

Mentor
MIX program, Technical University of Munich
Oct 2016 - Aug 2017 Munich, Germany

- MIX Program = Mentoring for International Exchange Students.
- Introduce them to the student life in Germany and Münchner-Studentlifestyle.
- Assist exchange students during their time at the Technical University of Munich.

Networking Cultural exchange Foreign languages practice

Treasurer
Tunesische Akademiker Gesellschaft, TAG e.V
Oct 2013 - Jul 2014 Munich, Germany

- Set-up events budgets, control expenses and seek new income resources.
- Collect the membership fees, prepare the Bills and assist other factions when needed.

Microsoft Excel Networking Financial reporting Budget control

PUBLICATIONS

[under review] Ayoub Malek and Hasna Marwa Malek (2020). "Pydiogment: A Python package for audio augmentation". In: *The Journal of Open Source Software (JOSS)*

Paper: Github/SuperKogito/pydiogment/paper.pdf
Project's folder: Github/SuperKogito/pydiogment

EDUCATION

M.Sc. in Electrical Engineering and Information Technology
Technical University of Munich
Mar 2017 - Jul 2019

- Master Thesis at Rohde & Schwarz: Antenna Array Diagnosis Using Phaseless Near-Field Data
- Master thesis grade = 1.3

Antenna testing data processing machine learning 5G

B.Sc. in Electrical Engineering and Information Technology
Technical University of Munich
Sep 2013 - Mar 2017

- Bachelor Thesis at TUM: Simulation Tool for WiFi Based Localization
- Bachelor thesis grade = 1.0

WiFi-based indoor localization Simulation Matlab

Deutsche Sprachprüfung für den Hochschulzugang (DSH) & Feststellungsprüfung (FSP)

Heidelberg University
Sep 2012 - Jun 2013

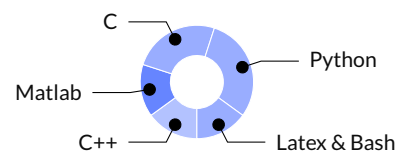
High School Graduation Diploma

Lycée pilote Monastir
Sep 2008 - Jun 2012

- Specialization Area: Technology (technical diploma),
- Grade = 1.3: Top 15 best Tunisian students in 2012 - government scholarship to study in Germany (with DAAD supervision)

technical baccalaureate

PROGRAMMING LANGUAGES



Python: Top 10% on Stackoverflow.com

numpy matplotlib scipy pandas sklearn keras sympy
reStructuredText BeautifulSoup hashlib regex ...

C, C++

Basys 3 BLE nano TI cc2650 MbedTLS AES SHA
Eclipse Xilinx Vivado ...
CHAI3D SDL Sockets TCP UDP Qt Box2D
Visual studio Falcon Haptic Device ...

Matlab

computer vision indoor mapping signal processing ...

LANGUAGES

Arabic English

German French

REFERENCES

- Several are available upon request.