

# Khaled Jallouli

## Software Engineer at PreciBake

#### Personal Information

Name Khaled Jallouli

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Date of birth September 06, 1995

Place of birth Nabeul, Tunisia

Nationality Tunisian

Portfolio https://khaledjallouli.github.io

LinkedIn https://www.linkedin.com/in/khaled-jallouli XING https://www.xing.com/profile/Khaled\_Jallouli

### Experience

#### Since Apr. **Software Engineer**, *PreciBake GmbH*, Munich, Germany

- 2021 Implement microservices within cloud environments using Django and FastAPI.
  - Contribute to technical documentation in Confluence, providing specifications and feature definitions. Ask for feedback from the team before implementation to ensure alignment with project goals.
  - o Create Jira tickets encompassing features, tasks, and backend-related bug fixes, facilitating organized and traceable project management.
  - Architect RESTful APIs with Swagger.
  - o Define Kafka Streams data and topics utilizing Faust as a streaming processing library.
  - o Design and implement aggregation pipelines with MongoDB, optimizing data processing and retrieval for improved system efficiency.
  - o Employ Python Type Annotations and Mypy as a type checker to enhance code readability and maintainability.
  - Deploy applications with Docker, Podman, and Kubernetes.
  - o Follow Trunk-based development as a version control management practice.
  - Uphold PEP8 coding style using Flake8 and Black, maintaining a consistent and readable codebase.
  - Develop unit tests and Ansible scripts.
  - o Collaborate with frontend engineers.
  - o Adhere to ISO 27001 practices with a primary focus on ensuring data security assurance and conducting thorough risk assessments.
  - o Conduct thorough code reviews to maintain code quality, identify improvements, and share knowledge within the development team.
  - Mentor and tutor working students.
  - o Participate in technical interviews for new joiners.
  - o Used technologies: Python · FastAPI · Django · Microservices · Kubernetes · Apache Kafka · MongoDB · REST APIs · WebSocket · ISO 27001 · Agile Methodologies · pytest · Docker Object-Oriented Programming (OOP) · Unified Modeling Language (UML) · Representational State Transfer (REST) · Swagger API · Postman API · Nginx · Celery · Slack · Jira · Git · NoSQL · JSON · Scrum · Unit Testing · Linux · Ansible

- Since Mar. **Private tutor**, *Superprof.de*, Germany
  - 2020 Provide online/in-person tutoring to students of different nationalities, backgrounds and ages
    - Help students understand concepts related to their studies or work on personal projects
    - o Teach lessons related to mathematics, programming, data science, and web development
- Aug. 2020 Data Science Intern (Master Thesis), KAMAG Transporttechnik, Ulm, Germany
  - Feb. 2021 Optimization of yard movements and automatic generation of transport orders.
    - Find the most appropriate approach for the purpose of the project based on related works and research.
    - o Analyze the Yard Management System data and constraints to define optimization strategies.
    - Model and solve the optimization strategies to reduce the driven distance in the yard.
    - Used technologies: Data Analysis, Constraint Programming, Optimization, IBM ILOG CPLEX, Data Mining Methodology, Python, RESTful API, Swagger, Flask, Vue.js, GitHub, and LaTeX.
- Feb. 2019 Software Engineer Intern, CP Georges Renault, Nantes, France
  - Jul. 2019 Setting up a server and developing a web interface to make the configuration of a tightening controller.
    - o Design a web architecture that meets company constraints.
    - o Develop the back-end and the front-end, then integrates them into the tightening controller.
    - Used technologies: RESTful API, Cutelyst (C++), Vue.js, JSON, NGINX, Responsive Web Design (Adobe XD), Scrum, and SVN.
- Jun. 2018 Web Development Intern, Leads Generation, Concarneau, France
  - Aug. 2018 Development of a website that references existing Business-to-Business events.
    - Define the main functionalities and implement a responsive website.
    - Used technologies: Drupal 7, HTML 5, CSS 3, PHP, Twig, JavaScript, JQuery, OVH, and Mailchimp.
- Jun. 2017 Web Development Intern, BR&T, Tunis, Tunisia
- Aug. 2017 Development of a website presenting the start-up CCA Tunisia.
  - o Install CMS plugins and implement a responsive website.
  - Used technologies: WordPress, HTML 5, CSS 3, PHP, and Mailjet.
- Jan. 2017 Web Development Intern, Arzen Systems, Ankara, Turkey
  - May 2017 Development of a learning management platform to manage courses, submit assignments and check grades.
    - Define the functionalities using UML diagrams and develop a web platform.
    - Used technologies: UML, PHP, MySQL, JavaScript, HTML 5, CSS 3, Bootstrap, and AJAX.

#### Education

- Oct. 2019 Master's Degree, Information Systems, Technische Hochschule, Ulm, Germany
- Mar. 2021 Relevant Coursework: Predictive Analytics, Intelligent and Autonomous Systems, Model-Driven Construction of Complex Systems, Software Quality Assurance, and Information Security.
- Sept. 2017 Master's Degree, Software Engineering, National School of Engineering, Brest, France
  - Mar. 2021 o Relevant Coursework: Develop Interactive Applications, UML, Database Management Systems.
- Mar. 2016 **Academic Exchange, Computer Engineering**, *Middle East Technical University*, Ankara, Turkey Jun. 2017 (Final grade: very good)
  - o Relevant Coursework: Programming, Web Development, Database Management Systems, and UML.
- Sept. 2014 **Bachelor's Degree, Computer Science and Multimedia**, *Higher Institute of Multimedia Arts*, Jul. 2017 Manouba, Tunisia (Final grade: good)
  - o Relevant Coursework: Mathematics, Programming, Relational Database, and Graphic Design.

#### Certificates

- Since Sept. HarvardX's Data Science Professional Certificate using R, Harvard University
  - 2020 Statistical concepts such as probability, inference, and modeling and how to apply them in practice.
    - o Gain experience with tidyverse, including data visualization with ggplot2 and data wrangling with dplyr.
    - o Implement machine learning algorithms through real-world case studies.
- October Certificate in Software Development For Medical Navigation Systems, *Technische Hochschule*, 2019–January Ulm, Germany
  - 2020 Software development: Programming with MITK (C++), Version control (Git), Testing and bug tracking.
    - Application concepts navigation: Tracking devices and navigation hardware OpenIGTLink (3D Slicer).
  - Oct. -Nov. : Certificate in Deep Learning with TensorFlow, IBM
    - 2019 Linear and Logistic Regressions, CNN, RNN, LSTM, and Deployment.

#### Jan. 2019 Certificate in Introduction to Artificial Intelligence, Microsoft

- o Machine Learning: Creating a Regression, Classification, and Clustering Models using AzureML Studio.
- Natural Language Processing: Text Analytics, Translation, and Speech.
- o Computer Vision: Image Classification, Image Analysis, Face detection, and Recognition.

#### Skills

- Programming Languages Python, R, Swift, C++, C#, Java, and C
- o Stream processing Kafka and Faust (Python)
- O Data Science TensorFlow, Keras, Scikit-learn, Pandas, Seaborn, and AzureML
- **Web** RESTful APIs, Swagger, FastAPI, Django, Flask, Node.js, Express.js, Vue.js, Cutelyst (C++), WebSockets, and Postman
- Database SQL (MySQL) and NoSQL (MongoDB)
- Unified Modeling Language UML (Modelio)
- DevOps Kubernetes, Docker, Podman, Ansible, Jira, Confluence, and Slack
- Agile Project Management Methodology Scrum and Version Control GitHub and GitLab
- Languages Arabic (Native), French (C1), English (TOEIC: 870/990), German (A2), and Turkish (A2)

#### Interests

Sport Long-time handball player in various clubs, currently licensed player in FC Bayern Munich, Germany. Travel Adventure trips around the world to get to know other cultures.