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
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Experience

Since Apr. 2021

Software Engineer, *PreciBake GmbH*, Munich, Germany

- 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.
- Create Jira tickets encompassing features, tasks, and backend-related bug fixes, facilitating organized and traceable project management.
- Architect RESTful APIs with Swagger.
- Define Kafka Streams data and topics utilizing Faust as a streaming processing library.
- Design and implement aggregation pipelines with MongoDB, optimizing data processing and retrieval for improved system efficiency.
- Employ Python Type Annotations and Mypy as a type checker to enhance code readability and maintainability.
- Deploy applications with Docker, Podman, and Kubernetes.
- 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.
- Collaborate with frontend engineers.
- Adhere to ISO 27001 practices with a primary focus on ensuring data security assurance and conducting thorough risk assessments.
- Conduct thorough code reviews to maintain code quality, identify improvements, and share knowledge within the development team.
- Mentor and tutor working students.
- Participate in technical interviews for new joiners.
- 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. 2020	**Private tutor**, *Superprof.de*, Germany
	○ 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
	○ Teach lessons related to mathematics, programming, data science, and web development
Aug. 2020 – Feb. 2021	**Data Science Intern (Master Thesis)**, *KAMAG Transporttechnik* , Ulm, Germany
	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.
	○ 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.
	○ <u>Used technologies</u>: Data Analysis, Constraint Programming, Optimization, IBM ILOG CPLEX, Data Mining Methodology, Python, RESTful API, Swagger, Flask, Vue.js, GitHub, and LaTeX.
Feb. 2019 – Jul. 2019	**Software Engineer Intern**, *CP Georges Renault*, Nantes, France
	Setting up a server and developing a web interface to make the configuration of a tightening controller.
	○ Design a web architecture that meets company constraints.
	○ Develop the back-end and the front-end, then integrates them into the tightening controller.
	○ <u>Used technologies</u>: RESTful API, Cutelyst (C++), Vue.js, JSON, NGINX, Responsive Web Design (Adobe XD), Scrum, and SVN.
Jun. 2018 – Aug. 2018	**Web Development Intern**, *Leads Generation*, Concarneau, France
	Development of a website that references existing Business-to-Business events.
	○ Define the main functionalities and implement a responsive website.
	○ <u>Used technologies</u>: Drupal 7, HTML 5, CSS 3, PHP, Twig, JavaScript, JQuery, OVH, and Mailchimp.
Jun. 2017 – Aug. 2017	**Web Development Intern**, *BR&T*, Tunis, Tunisia
	Development of a website presenting the start-up CCA Tunisia.
	○ Install CMS plugins and implement a responsive website.
	○ <u>Used technologies</u>: WordPress, HTML 5, CSS 3, PHP, and Mailjet.
Jan. 2017 – May 2017	**Web Development Intern**, *Arzen Systems*, Ankara, Turkey
	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.
	○ <u>Used technologies</u>: UML, PHP, MySQL, JavaScript, HTML 5, CSS 3, Bootstrap, and AJAX.

Education

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

Certificates

Since Sept. 2020	**HarvardX's Data Science Professional Certificate using R**, *Harvard University*
	○ Statistical concepts such as probability, inference, and modeling and how to apply them in practice.
	○ Gain experience with tidyverse, including data visualization with ggplot2 and data wrangling with dplyr.
	○ Implement machine learning algorithms through real-world case studies.
October 2019–January 2020	**Certificate in Software Development For Medical Navigation Systems**, *Technische Hochschule*, Ulm, Germany
	○ 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. 2019	**: Certificate in Deep Learning with TensorFlow**, *IBM*
	○ Linear and Logistic Regressions, CNN, RNN, LSTM, and Deployment.

Jan. 2019 **Certificate in Introduction to Artificial Intelligence**, *Microsoft*
- Machine Learning: Creating a Regression, Classification, and Clustering Models using AzureML Studio.
- Natural Language Processing: Text Analytics, Translation, and Speech.
- Computer Vision: Image Classification, Image Analysis, Face detection, and Recognition.

Skills

- **Programming Languages** Python, R, Swift, C++, C#, Java, and C
- **Stream processing** Kafka and Faust (Python)
- **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.