

Dr. Nabila Abdessaied

Software Engineer

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Address: London, UK
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Professional Experiences

Jan. 2022 - present: SOFTWARE ENGINEER

Microsoft, London, United Kingdom.

- Led the extension and integration of the 5G core end-to-end solution testing framework to validate the Subscriber Data Management solution. Crucial in the early detection and resolution of bugs, thereby improving the overall quality of the solution.
- Owned features that improved the availability and scalability of the Mobile Voicemail solution by leveraging Azure technologies, such as *On-demand Capacity Reservation* and *VM Scale Sets*.
- Enabled the live configuration of the Mobile Voicemail deployment resulting in a significant time savings for operators, taking time per configuration change from 25min to 5min.
- Proposed and championed CI enhancement features that automate previously manual and repetitive workflows. This has streamlined both the deployment and testing processes, resulting in a time saving of 30 minutes per deployment.

Sept. 2016 - Dec. 2021: SOFTWARE ENGINEER

Infineon Technologies AG, Munich, Germany.

- Took ownership of the design and implementation of a Groovy shared library that encapsulates essential functionalities for embedded software pipelines in Jenkins. This library has been adopted by the software teams at Infineon, streamlining their development processes.
- Co-directed the Infineon CI community, taking charge of organizing, moderating, and managing meetings. I provided the latest updates in the field, invited speakers, and coordinated Hackathons.
- Boosted the developer productivity by designing and developing standard Docker images that offers software teams a platform which integrates tools, methods, and best practices to perform software development tasks.
- Contributed to the design, development, and unit testing of embedded software.

Nov. 2013 - July 2016: RESEARCH & DEVELOPMENT ENGINEER

German Research Center for Artificial Intelligence (DFKI), Bremen, Germany

- Automated the translation of natural language assertions into System Verilog Assertions using natural language processing tools.
- Developed a requirements quality assessment method using natural language processing and machine learning techniques.
- Published a book chapter and two international conference papers in the area.

Jan. 2012 - Dec. 2015: RESEARCH & DEVELOPMENT ENGINEER

Institute of Computer Science at University of Bremen, Germany

- Optimization and complexity analysis of reversible and quantum circuits.
- Published a book and several papers in the area, including journal articles in *Theoretical Computer Science* and *Information Processing Letters*.

Sept. 2009 - Dec. 2011: UNIVERSITY TUTOR
Institute of Computer Science of Ariana, Tunisia.
Teaching and supervising students at university.
Modules: *Operating systems, databases, C, algorithms and data structures.*

Nov. 2007 - Dec. 2008: SOFTWARE ENGINEER
EREAIT: Italian company, based in Tunis, Tunisia.
Implementation of software and web applications focused on tax and salary management.

Studies

2012 - 2015: PHD IN COMPUTER SCIENCE
Topic: Reversible logic and quantum computing.
University of Bremen, Germany.

2007 - 2009: MASTERS IN COMPUTER SCIENCE
Topic: Micro-electronic embedded systems.
National Engineering School of Sousse, Tunisia.

2002 - 2007: DIPL.ING. IN COMPUTER SCIENCE
Topic: Networks and distributed systems.
University of Sciences of Tunis, Tunisia.

Licenses and Certifications

📄 **Moving from Developer to Eng. Manager**
LinkedIn Learning, Jun 2021

📄 **Software Design and Architecture**
University of Alberta - Coursera, Aug 2020

📄 **Data Structures and Algorithms**
University of California - Coursera, Nov 2020

📄 **Functional Safety certificate in ISO 26262**
TÜV SÜD, Oct 2018

Volunteer Experience

Nov. 2018 - present: Active committee member
in a charity organisation supporting children with
disabilities in Tunisia by funding their education and
healthcare needs
TunisAid e.V. , Munich, Germany

Oct. 2017 - Feb. 2018: Arabic teacher for the Arabic
community based in Munich.
Zahr Aljasmin school, Munich, Germany

Oct. 2014 - Oct. 2015: Observer in a national electoral
observation network organization participating in the
Tunisian parliamentary and presidential elections for
Tunisians in Germany
Mourakiboun, Tunis, Tunisia.

Skills

- **DevOps & CI/CD:** Docker, Jenkins, GitLab, Azure DevOps Services.
- **Cloud Computing Platform:** Microsoft Azure.
- **Infrastructure as code (IaC):** Terraform, Azure Resource Manager (ARM).
- **Container Orchestration:** Kubernetes, Helm, Azure Bicep.
- **DBMS:** Oracle, MySQL, SQL Server.
- **Revision control systems:** Azure Repos, Bitbucket, Git, SVN, Gerrit.
- **Programming Languages:** C/C++, Python, Groovy, Java, Shell.
- **Unit testing:** Ceedling, Unity, PyTest.
- **Code coverage:** Gcov, Python Coverage.
- **IDE:** VSCode, Eclipse, IntelliJ, PyCharm.
- **Build/Package systems:** Make, CMake, Conan.
- **Code Analysis:** ISO26262 guidelines, Misra C/C++, PC-Lint, Polyspace.
- **Analysis/Monitoring:** Grafana, SonarQube.
- **NLP:** Stanford CoreNLP library.
- **ML tools:** Weka.
- **AI tools:** Copilot, OpenAI.
- **Agile framework:** Scrum, Kanban.
- **Agile project management:** Jira, Azure Boards.
- **Editors:** TeX/LaTeX, Microsoft Office.

Languages

- **Arabic:** Native language
- **English:** C2 proficient level
- **French:** C2 proficient level
- **German:** B2 upper intermediate level