Hamza Ben Hassen

Electrical engineer

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Professional Experience

Quality Assurance Lead, Heycharge GmbH, Munich, Germany   Aug 2022 - Jul 2023

- Orchestrated the establishment of robust quality assurance systems to ensure stringent compliance with German and European regulations governing electric vehicle charging equipment.
- Spearheaded cross-functional collaborations to design and implement comprehensive testing protocols, facilitating successful audits and certifications.
- Developed and executed unit and integration test suites for embedded firmware, leveraging expertise in C++ and technologies such as Silicon Labs, Bluetooth LE, and ZigBee to validate robust functionality and reliability.
- Architected and developed custom test automation software and hardware solutions, enabling continuous metric collection, regression testing, and automated report generation, optimizing testing processes while upholding rigorous quality standards.

Key Skills: Programming, Test Automation, Project Management, Cross-Cultural Communication, Multilingual Proficiency.

Test and Development Engineer, in-tech GmbH, Wolfsburg, Germany   Jun 2021 - Jul 2022

- Collaborated closely with a premier automotive manufacturer to architect and execute an extensive testing infrastructure for their forthcoming vehicle release, ensuring stringent quality standards.
- Coordinated cross-functionally with multidisciplinary teams and stakeholders to define and implement comprehensive test strategies, aligning with project requirements and timelines.
- Developed and automated test scripts for critical automotive systems, including infotainment and safety-critical features, leveraging technologies such as Automotive Ethernet, CAN, CANoe, ECU-Test, and Python.
- Acquired in-depth knowledge of automotive components integration and implemented robust remote testing protocols with simulated environments, enabling comprehensive test coverage and validation.
- Maintained rigorous quality assurance throughout the testing lifecycle, ensuring adherence to industry-leading standards and best practices.

Key Technologies: Automotive Ethernet, CAN, CANoe, ECU-Test, Python, ControlDesk, Jenkins, Bitbucket, Jira

Test Engineer, Preh Car Connect GmbH, Dresden, Germany   Jan 2018 - Mar 2020

- Developed end-to-end automation tests for speech recognition and synthesis systems, ensuring system reliability in interpreting and following instructions in multiple languages.
- Assembled and configured automation test rigs for comprehensive testing and validation of automotive infotainment systems.
- Collaborated with cross-functional teams to enhance system performance, user experience, and overall product quality.

Key Technologies: Automotive Ethernet, Jira, Car Infotainment, C#, VBA

Education

Dipl.-Ing., Electrical Engineering, Technische Universität Dresden, Dresden, Germany   Oct 2014 - Nov 2020

- Specialization: Measurement, Control, and Automation , thesis grade : 2.0 , grade : 2.6
- Optional Courses: Speech Synthesis and Recognition, VLSI Processor Design, Language Technology, Human-Machine Interface (HMI) Systems

Skills & Interests

I am **fluent in German, English, French, and Arabic**, and **proficient in programming languages such as Python, JavaScript, TypeScript, C, and C#**. I have experience working with **embedded technologies such as Bluetooth Low Energy, ZigBee, and Modbus**. I am interested in leveraging **generative AI pipelines for Automatic Speech Recognition (ASR), Text-to-Speech (TTS), language understanding, and reasoning** to create **agent-based next-generation human-machine interfaces**.