Nandhish Thathanur Rajappa

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Address: Walther-Ratheanu-Straße 56, 39106, Magdeburg, Deutschland

Skills

Languages: English (C1)
Digital Skills: C++, Python, Qt, QML, SQL, Agile-Scrum, Version Control System(Git), CI/CD, UML Diagrams, Visual Studio, Linux, Windows, Application Development, CMake, MS Office, SonarQube
Soft Skills: Effective Communication, Teamwork, Problem Solving, Adaptability

Education

Master of Science | ***Digital Engineering*** October 2023 – Current
Otto-von-Guericke-Universität Magdeburg, Deutschland

Bachelor of Technology | ***Electronics and Communication Engineering*** May 2015 – April 2019
Vellore Institute of Technology (8.29 CGPA) Chennai, India

Work Experience

Wissenschaftliche Hilfskraft April 2024 – Current
Otto-von-Guericke-Universität Magdeburg, Deutschland

- Implemented DMA communication with FPGA using Xilinx XDMA, developing C++ code for data transfer and real-time monitoring of DMA status registers.
- Developed and optimized custom kernels for Xilinx Vitis AI Engine, implementing high-performance data processing operations using AIE intrinsics and vector processing.

Software Developer Engineer November 2021 – September 2023
Siemens Advanta Bengaluru, India

- Led the development of the screen editor in the TIA Portal desktop app, overseeing feature implementation, bug fixes, and contributing to feature-level architecture design.
- Ensured seamless integration and delivery of projects, playing a key role in project execution.
- Provided mentorship to junior developers, maintaining high code quality and fostering teamwork.

Software Engineer June 2019 – October 2021
L&T Technology Services Mysuru, India

- Actively contributed to the end-to-end development of GUI for a Patient Monitoring device.
- Conducted thorough unit testing with Google's Test Framework and contributed to peer reviews, improving overall code quality.
- Ensured reliability through timely bug fixes and effectively communicated project progress in presentations.

Projects

Totally Integrated Automation Portal | ***C++, QT*** November 2021 – September 2023
Siemens Technology and Services Private Limited

- TIA Portal is a software suite catering to diverse factory automation requirements. Leveraged C++, Qt Framework, cmake, conan, and Visual Studio to develop the screen editor, facilitating the device configuration.

Patient Monitoring Device | ***C++, Qt, QML*** August 2019 – October 2021
L&T Technology Services

- This project revolves around the development of a graphical user interface (GUI) tailored specifically for a patient monitoring device. It encompasses a range of essential features including ECG, SpO2, and BP monitoring. Utilized QML for the user interface and C++ for the backend, following the MVVM architecture.

Three Player Chess | ***Java, HTML, CSS*** October 2023 - January 2024

Otto-von-Guericke-Universität

- Created a three-player chess game project from scratch during the ”Clean Code Development” course. Designed the software architecture with a focus on clean coding principles and incorporated CI/CD processes for automated builds and thorough code quality assurance.

NVM optimized Bϵ-tree | ***C++*** April 2024 - August 2024

Otto-von-Guericke-Universität

- Developed an NVM-optimized Bϵ-tree to enhance write performance and indexing with non-volatile memory. It uses internal node buffers and efficient in-place updates, reducing rebalancing and optimizing read/write operations for high-performance storage systems.

Flat Earth Believer Bot | ***LLM, python, Prompt Engineering*** April 2024 - August 2024

Otto-von-Guericke-Universität

- Developed an interactive chatbot for Flat Earth theory discussions, teaching critical thinking and argumentation. Leveraged advanced prompt engineering, sentiment analysis, and personas to deliver tailored responses, hints, and quizzes for enhanced learning.

Disease Prediction using LLM | ***python, RAG, LLM*** February 2024 - April 2024

Otto-von-Guericke-Universität

- Developed a medical chatbot with BioMistral-7B, integrating RAG for improved disease prediction. Optimized performance through careful embedding model selection, hyperparameter tuning, and implemented Chroma DB for efficient information retrieval.