DŽENAN KREHO

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TECHNICAL SKILLS

Programming languages:

`C/C++` `MATLAB` `Python` `Java` `Assembly` `LabVIEW`

PLC programming:

`LD` `FBD` `SFC` `ST`

Frameworks and libraries:

`FreeRTOS` `JUnit` `CMSIS-DSP` `Qt` `OpenCV`

Tools:

`Simulink` `Git` `CMake` `Linux` `Doxygen`

IDEs:

`CLion` `Visual Studio` `PyCharm` `IntelliJ IDEA` `Code Composer Studio` `Keil uVision` `MPLAB X`

LANGUAGES

Bosnian: Native

English: Fluent

German: Elementary

EDUCATION

Master of Electrical Engineering
with Specialization in Automatic Control and Electronics
University of Sarajevo, Bosnia and Herzegovina   📅 Oct 2022 – Sept 2024

Master of Science in Computer Science
with Specialization in Embedded Systems
Mälardalen University, Sweden   📅 Aug 2023 – Jun 2024

- Obtained through the Erasmus+ International Credit Mobility programme.

Bachelor of Electrical Engineering
with Specialization in Automatic Control and Electronics
University of Sarajevo, Bosnia and Herzegovina   📅 Oct 2019 – Sept 2022

- Received the University of Sarajevo Silver Badge in acknowledgment of academic achievement.

EXPERIENCE

HVDC Control & Protection Software Engineer
Hitachi Energy   📅 Jan 2025 – Present

Master's Thesis Student
Volvo Construction Equipment   📅 Jan 2024 – May 2024

- Worked on a Master's thesis that focused on functionality allocation, timing analysis, and schedulability analysis of multi-core ECUs.
- Developed a tool in C that implements the specified analysis and techniques.

Student Researcher
University of Sarajevo, Faculty of Electrical Engineering   📅 Nov 2021 – Feb 2023

- As part of a research project, worked on the GUI component of a real-time simulator for smart grid networks.
- Wrote C++ code that uses the Windows App SDK, GTK 4, and 3D rendering APIs: OpenGL and Vulkan.
- Performed performance testing, documented the results, and documented the development process in the form of beginner tutorials to assist other project team members in the future.

Undergraduate Teaching Assistant
University of Sarajevo, Faculty of Electrical Engineering   📅 Mar 2022 – Jun 2022

- Conducted, assisted students with, and graded laboratory exercises for the courses:
  - Programming Techniques (C++ and object-oriented programming)
  - Lab work in Automatic Control and Informatics (Data acquisition and control using acquisition cards and PLCs)