

## Education

**Karlsruhe Institute of Technology**

*B.Sc. Computer Science (Informatik), GPA: 2.2 (German system)*

Karlsruhe

*Oct 2018 | Feb 2022*

## Experience

**Chair for Embedded Systems - KIT**

*Intern (Praktikant)*

*Oct 2019 | Apr 2020*

- Worked on the development of a distributed task scheduling system in C++ in a team of five.
- Developed the MySQL-database using the QT SQL Module framework and integrated it into other parts of the product.
- Wrote extensive tests using the Google Test framework.
- Wrote documentation (class diagrams, ER models, etc.) for each stage in the development process.
- Used software design patterns like the Factory, Repository, Gateway, Observer and Strategy patterns to produce clear and understandable code.

## Skills

Java, Python, C++, C, SQL, Haskell, Prolog

**Tools** Git, Docker, Qt, LaTeX, MySQL, CMake

**Languages** English (native), German (C1), Arabic (native)

## Projects

**DAWN 11/15** Java

<https://github.com/ralmasri/DAWN-11-15>

An interactive CLI board game built in my first semester Java course

**Material Requirements Determination** Java

<https://github.com/ralmasri/Final-Project-2>

An interactive CLI program that simulates a factory in my first semester Java course.

**My Website** Hugo, HTML, Google Analytics

<https://ralmasri.github.io/>

My personal website with Google Analytics functionality designed using the Hugo framework and hosted on Github using submodules.

**Automation Scripts** Python, Bash

A bunch of simple of automation scripts for updating my website and other menial tasks.

**Data Science Projects** Python

While doing the Financial Data Science course at KIT, I've created Python scripts that analyze and forecast financial data. Examples include modelling via ARMA and ARCH-GARCH models, Ordinary Least Squares, Maximum Likelihood Estimation, etc.