

Daniel Duclos-Cavalcanti

COMPUTER ENGINEER, AMERICAN AND BRAZILIAN CITIZEN

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Education

TU München

MASTERS OF SCIENCE IN ELECTRICAL AND COMPUTER ENGINEERING

- **Currently Enrolled**

Munich, Germany

Oct 2020 - PRESENT

TU München

BACHELOR OF SCIENCE IN ELECTRICAL AND COMPUTER ENGINEERING

- **GPA**, 3.1 in American Standards
- **GPA**, 2.2 in German Standards
- **Bachelor Thesis**, 1.3 in German Standards — Netlist Error Modeling

Munich, Germany

Feb 2017 - 2020 Sept

PUC-RIO

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (UNFINISHED)

- **144 of 238**, Credits Completed
- **Hochschule Furtwangen University**, Furtwangen, Germany — *Year Abroad 2017*

RJ, Brazil

Jan 2013 - 2017 Jan

Skills and Languages

Code	C (High), C++ (Interm. - High), Lua (High), Go (Low), Haskell (Low), Python (Interm.), Bash, POSIX Shell, VHDL
Languages	English (Native), German (Fluent), Portuguese (Native), Spanish (Basic)
Tools	Docker, GNU Make, CMake, Git, Linux, Ansible, Jenkins CI, Travis CI, gTest, PyTest
Systems	FreeRTOS, Contiki OS, Linux

Experience

TUM Electronics Design Automation

WORKING STUDENT - RESEARCH STAFF

Aiding current research at the department. Work consists of development of projects currently being pursued by the department. Differs on a project to project basis, but currently has mostly been writing python code to automate and build a design space exploration framework that obtains benchmarking and other metrics of machine learning models being deployed onto various embedded devices.

Munich, Germany

Jul 2022 - Now

Molabo Gmbh

WORKING STUDENT - EMBEDDED SOFTWARE ENGINEER

- Development of
 - containerized unit tests in C++ through gTest/GoogleTest
 - embedded C code for microcontrollers
 - VHDL Modules for FPGAs
 - build Systems and toolchains written in CMake and Make using Dockers
 - CI pipelines through Jenkinsfiles and groovy scripts
 - Python and Bash scripts to automate development.
- Supervision of:
 - the team's CI Pipeline using Jenkins.

Munich, Germany

Aug 2021 - Jan 2022

TU München

TUTOR - EMBEDDED SYSTEMS PROGRAMMING LAB

- Assisted students during their course work and their final project, which consisted of writing FreeRTOS applications in C.

Munich, Germany

April 2021 - Aug 2021

TU München, RCS Department

RESEARCH INTERNSHIP

- Assisted a doctorate candidate on his work with tinyML research.
- Worked with Google's Edge Coral TPU, where I benchmarked it's performance on the inference of several Machine Learning Models.
- Automated the training, freezing, inference and Hardware deployment of several ML Models.

Munich, Germany

Oct. 2020 - Feb 2021

Projects and Certificates

- **FreeRTOS Space Invaders:**
 - Implemented a replica of Space Invaders as a FreeRTOS application written in C.
 - Goal was to simulate how multithreaded applications work on embedded devices.
- **go-menu:**
 - Simple CLI tool based on the tcell golang library
 - servers as a CLI menu system to choose between different options
- **UCSD: Data Structures Fundamentals**
- **UT Austin: Embedded Systems - Shape the World: Microcontroller I/O**