# SIMON CRAIG



## **CONTACT**

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# **EDUCATION**

MSC ELECTRICAL ENGINEERING • 2024-PRESENT

Danish Technical University, Copenhagen, Denmark

Robotics, automation, control systems, embedded hardware

BENG MECHATRONIC ENGINEERING • 2020-2023

Stellenbosch University, Stellenbosch, South Africa

Combination of electrical and mechanical engineering courses specializing in integrating both aspects into projects.

#### KEY SKILLS

sensors & actuators

**Programming:** C, C++, VHDL, ARM assembly, MATLAB, R Studio, PLC, Python, UR script

**Design:** AutoCAD Inventor, Solid Works, Technical Drawings, Structural analysis

**Circuit Design:** LT & NG Spice, Cadence, Electronic design

**Robotics & Control:** Control systems, PID control, Simulink, PLC integration,

**Computer Vision/Image Analysis:** OpenCV

**Languages:** English home language, Afrikaans basic understanding

### **PROFILE**

Electrical Engineering MSc student with a strong hands-on background in robotics, automation, embedded systems, and mechanical design. Experienced in CAD, control systems, programming, and electromechanical integration through university projects and industry roles. Highly motivated, quick to learn, and eager to contribute as a student assistant in engineering, IT-adjacent, or technical development roles.

## **EXPERIENCE**

## PROJECTS DURING UNIVERSITY

- Member of DTU RoboCup team, earning 2nd place and best fighter awards
- Invited to join X-tech+ program after successfully developing a functioning MedTech prototype
- Built a PLC-controlled coin sorting machine using solenoids and actuators
- Programmed a UR robot to sort medicine vials using integrated camera sensors and PLCs
- Designed and built a torque-controllable eddy current brake (Bachelor's project, distinction)
- Designed and tested high- and low-pass amplifier circuits
- Implemented an image edge detector in VHDL on FPGA
- Designed and programmed a multi-purpose flashlight using STM Nucleo (C)

### **SECUYOU** – CAD DESIGNER

#### COPENHAGEN | OCT 2024 - MAR 2025

- Redesigned an electric door handle into modular components, improving manufacturability
- Designed a new handle variant for sliding door applications
- Worked closely with engineering requirements and production constraints

#### **ROBERTSON & CAINE** – ENGINEERING INTERN

## CAPE TOWN | JAN 2024

- Supported yacht design work using SolidWorks
- Investigated installation issues related to sliding doors
- Created a new installation manual, improving consistency and efficiency

#### **DE BEERS MARINE** – ENGINEERING INTERN

### CAPE TOWN | JAN 2022

- Assisted a structural engineer with kinematic and vibration modelling
- Contributed to problem-solving for offshore mining operations
- Supported winching analysis for deep-sea trawler operations

