

# RUI OLIVEIRA

DESIGN / STRUCTURAL ENGINEER

Örebro, Sverige

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## SUMMARY

Structural engineer with over 9 years of experience, focused on steel analysis and design for the last 7 years in several different projects from SubSea (local design of valve and pipe supports and Production Manifolds Pad eyes) to Industrial buildings (global analysis and local design of several Amazon distribution centers) and public buildings (local design of a train station extension).

Fast learner and strong 3D capability.

The experience on both sides of the business – design office and steel fabricator – give me a good understanding of the way steel structures are/ can be made.

## PROFESSIONAL EXPERIENCE

**Structural Engineer at J & D Pierce, Ayrshire, U.K. (March 2019 -> March 2020)**

Working as Structural Engineer in steel structures doing mainly local design using hand calculations and Tekla structural designer / Tekla connection designer. **Most relevant project:**

- Queen Street Station – Joint design for trusses, bracing and moment connections.
- London city airport – Local design of beams, bracing and trusses.
- Amazon Neasden – Global analysis and local design of a 5 storey van park.

**Design Engineer at Mezzanine International, Kings Hill, U.K. (May 2017 -> December 2018).**

Working as design engineer in the “Integrated systems” department designing and detailing bespoke mezzanine floor solutions integrated with mechanised and automated systems, with the constant contact with the client, using 3D Cad Tekla Structures, Tekla Structural Designer and AutoCad.

**Most relevant projects:**

- Amazon – Wrocław – mezzanine floor supporting conveyors and walkways with staircases, ladders and edge protection.
- Fives – Structural calculations for a 2 tier mezzanine with several walkways and conveyors.
- Participate in project discussions and contribute with structural solutions for the project.
- Constant contact with the client to adjust the structure to their needs.
- Design and detail the steel structure and the ancillaries.
- Production of materials lists, fabrication drawings and general arrangement drawings.
- Check others detailers drawings.

**Design Engineer at Miller Fabrications, Wishaw, U.K. (October 2016 -> May 2017)**

Working as design engineer in several steel structures using 3D Cad Tekla Structures and hand calculations, doing the design and also doing the production drawings, assembly drawings, GA drawings and setting out drawings. **Most relevant project:**

Royal Hospital for Sick Children - Design and detail the secondary steel.

Check the calculations done by other engineers

Production of materials lists, fabrication drawings and general arrangement drawings.

**Design Engineer at Mezzanine International, Kings Hill, U.K. (March 2015 -> October 2016)**

Working as design engineer in the “Special Projects” department designing and detailing bespoke mezzanine floor solutions integrated with mechanised and automated systems, with the constant contact with the client, using 3D Cad Tekla Structures and AutoCad.

**Most relevant projects:**

- New Market - A total of 980 m<sup>2</sup> divided in 4 tiers, supporting different conveyors, lifts, racks and walkways.
- East Midlands Airport - A total of 46000 m<sup>2</sup> divided in 21 different areas, supporting different types of conveyors, sorters and walkways.

**Design Engineer at AKD Contracts, Dartford, U.K. . (December 2014 -> March 2015)**

Working as design engineer in several steel structures using 3D Cad Tekla Structures, doing the design and also doing the production drawings, assembly drawings, GA drawings and setting out drawings. **Most relevant project:**

“MetroBank” - Building modification in order to accommodate a bank branch;

“NewBarnet” - Stairs and balconies design.

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## **Design Engineer at Skanska Stålfabrikken, Trondheim, Norway. (July 2014 -> November 2014)**

Working as design engineer in several steel structures using 3D Cad Tekla Structures, doing the design and also doing the production drawings.

### **Most relevant projects:**

"Regionalt kulturhus Stjørdal" - Culture house with 17500 square meters;

"Børsa skole" - School with sports pavilion;

"Skogstad gangbru" - Footbridge with 28 meters made in just one piece.

## **Structural Engineer at GE Oil & Gas, Trondheim, Norway. (November 2012 -> November 2013)**

Working as Structural Engineer in local design of SubSea structures.

### **Most relevant project:**

- "Julimar Apache" – Local design of some elements on Production Manifolds and Cross-Over Manifolds.

Local analysis of Valve supports and pad-eyes.

Design and analyse several types of supports used in the Manifolds.

Hand calculations using MathCad. Beams and plates analysis using Sesam GeniE.

Participate in project discussions and contribute with structural solutions for the project.

Weld analysis and calculations.

Check other engineer's calculations.

Drawings review using 3D Cad ProEngineer and AutoCad.

Check the drawings made by the draughtsman.

## **Jr. Structural Engineer at Trimétrica Engenharia Ltda. (July 2010 -> October 2012)**

Working as Junior Structural Engineer in reinforced concrete structures design, steel structures analysis and design, and structural strengthening analysis and design.

### **Most relevant projects:**

- Rehabilitation and Reinforcement of several steel and masonry bridges, including Structural Design, Safety Inspection, Steel and concrete mechanical tests (resistance and fatigue).

## **EDUCATION**

**Masters Degree in Structural Engineering (September 2006- July 2010) - Instituto Superior Técnico (Lisbon, Portugal).**

**Master Degree Grade: Upper second-class Honours (2:1)**

Most relevant subjects: Bridges; Concrete Structures I; Concrete Structures II; Construction Pathology and Rehabilitation; Structural Analysis I; Structural Design; Structural Dynamics and Earthquake Engineering; Structural Buildings; Structures Rehabilitation and Repairing; Construction Materials II.

Master's degree graduation thesis: "*Seismic Performance of a Footbridge in Pre-Cast Reinforced Concrete*".

**Bachelor Degree in Civil Engineering (2002 - 2006) - Instituto Superior Técnico (Lisbon, Portugal).**

**Bachelor Degree Grade: Lower second-class Honours (2:2)**

Most relevant subjects: Hydraulics; Structural Analysis; Materials Behaviour; Construction Materials I; Buildings Construction Technology; Operational Investigation Methods; Management.

## **COMPUTER SKILLS**

**Proficient user of MathCad and Tekla Tedds.**

**Proficient user of Idea Statica.**

**Proficient user of finite element software SAP2000.**

**Experienced user of Autocad and Microsoft Excel.**

**Proficient user of Tekla Structures and Tekla Structural Designer.**

**Proficient user of Pro Steel 5.**

**Good knowledge of Autodesk Inventor.**

**Good knowledge of Sesam GeniE.**

**Good knowledge of STAAD.**

**Basic knowledge of Pro Engineer – 3D CAD.**

**Good knowledge of PDMS.**