



# Ruben Roque Dias

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🎂 25<sup>th</sup> of September, 1993

🏠 Vila Nova de Gaia, Portugal

## Profile

I hold a master's degree in Electrical and Computers Engineering since 2017. I am currently a Simulation Developer and Consultant with 1.5 years of experience, specialising in discrete-event simulation. Previously, I worked for half a year as a front-end developer, mainly using vanilla Javascript, jQuery, and the KendoUI framework. I was also a Teaching Assistant for one semester during my master's degree.

I am an efficient and versatile engineer. Working in a team environment and having direct contact with clients has made me an effective communicator and a proactive team member. I am a fast learner, and always eager to increase and share my knowledge.

## Work Experience

January 2019 -  
Present

### Simulation Developer & Consultant

@ INESC TEC, Porto, Portugal

- Leading Simulation projects for improving operational results and KPIs of manufacturing companies
- Developing virtual factory models using discrete event simulation (Simio software)
- Leveraging Simio's API using C# for enhanced connectivity with 3<sup>rd</sup> party software
- Performing analysis using Excel and Java
- Training new colleagues that come to research/work in this area, and guiding masters students during their thesis

April 2018 -  
December 2018

### Front-End Developer

@ Dreamo - Balanced Work Systems, Matosinhos, Portugal

- Developing interfaces for managing workflows and communication
- Creating back-end services and database structures to support the functionalities being developed
- Working with vanilla Javascript, jQuery, C#, KendoUI, SQL Server and of course, HTML and CSS
- Developed mobile app prototypes for managing communication & notifications using Ionic and PhoneGap

March 2017 -  
March 2018

### Simulation Developer & Researcher

@ INESC TEC, Porto, Portugal

- Developing virtual factory models using discrete event simulation (Simio software), to improve operational performance of manufacturing companies
- Leveraging Simio's API using C#
- Performing analysis using Excel and Java
- Researching within European H2020 projects, ScalABLE and FASTEN, on real-life simulation applications to leverage the emergence of Industry 4.0

September 2015 -  
February 2016

### Teaching Assistant

@ Faculty of Engineering of the University of Porto, Portugal

- Assisting in laboratory classes of the Digital Systems Laboratory course during my Master's

## Education

September 2011 -  
March 2017

### Master in Electrical and Computers Engineering

@ Faculty of Engineering of the University of Porto, Portugal

- My branch of study was Automation, thus I worked frequently with PLCs and MES softwares
- Gained knowledge on industrial/applied electronics, embedded systems and industrial informatics, often creating applications using microprocessors (e.g. Arduino)
- Specialised in Industrial Management, becoming knowledgeable on enterprise information systems, decision support systems and operations management

### Master Thesis - Models for Improvement Management and Operational Performance

@ INESC TEC, Porto, Portugal

- Explored Simulation as a tool in supporting decision making in the context of manufacturing industries
- Created a virtual factory model in AnyLogic to simulate a job-shop environment and test improvement strategies
- Used InfluxDB for real-time data storing to handle the data generated by the simulator
- Provided real-time data visualisation using Grafana

September 2014 -  
March 2015

### Erasmus+ Exchange Program

@ Wrocław University of Technology, Poland

- Gained knowledge regarding my specialisation (Industrial Management), and took classes on Polish Language

## Personal Interests

### iOS Development (using Swift and Xcode)

I am a self-taught developer for iOS applications. I am currently developing a financial tracking app on my free time which allows me to explore and test what I have learned. I have completed a full course from Udemmy to get started, as well as some others taught by highly regarded Youtube instructors, such as a few of the paid courses offered by Brian Voong from Let's Build that App, a well known professional instructor and developer in the Swift community.

### Hobbies

Technology, music, playing football with friends, fitness, traveling.

## Software Skills

### Advanced

- Simio
- AnyLogic
- MS Excel
- MS PowerPoint
- MS Word

### Basic

- FlexSim
- Visual Components
- PLC Next
- Grafana
- InfluxDB

## Programming Skills

### Experienced

- Swift
- Javascript
- HTML / CSS
- jQuery
- SQL
- C

### Basic

- Java
- C#
- Python
- Assembly
- Visual Basic




## Complementary Education and Training

|               |  |
|---------------|--|
| February 2019 | <b>OPC-UA / PLC Next Workshop</b><br>@ INESC TEC, Porto, Portugal  |
| January 2019  | <b>FlexSim Workshop</b><br>@ INESC TEC, Porto, Portugal  |
| March 2017    | <b>Visual Components Workshop</b><br>@ INESC TEC, Porto, Portugal  |
| May 2015      | <b>Public Speaking Techniques</b><br>@ BEST group, Faculty of Engineering of the University of Porto, Portugal |

## Scientific Conferences

|                |  |
|----------------|--|
| September 2017 | <b>Presenter - A Simulation and Optimisation Framework for Integrated Planning and Process Design</b><br>@ ENEGI 2017, Porto, Portugal |
| June 2017      | <b>Presenter - Models for Improvement Management and Operational Performance</b><br>@ IO 2017, Valença, Portugal                       |

## Languages

|   |                              |
|---|------------------------------|
|  | Portuguese • native language |
|  | English • fluent             |
|  | German • basic               |