


# Miguel Castro

Software developer

London 

miguelpc94 

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miguelpc94 

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Portuguese citizen, Married, 25 years-old 

An engineer with a great drive for infusing intelligence into processes and automating tasks. Experienced software and hardware developer for robotics applications. Seeking new opportunities as a Web/React Developer. Will be available in London after July 2019.

## Relevant skills and technologies

- React
- Redux
- React Router
- JavaScript (ES9)
- Styled components
- HTML5
- Node.js
- jQuery
- Python
- CSS3
- Java
- MeteorJS

## Experience

NOVEMBER/2016 – JULY/2019

### SFX Solution Provider / TV Globo, Rio de Janeiro

- Developed a software used by the entire special effects department to report the daily activity in the sets, generating data to be used by decision makers.
- Designed hardware and software of the automated rotating chairs of the singing talent TV show The Voice Brasil. It composed a very important part of the artistic concept of the show.
- Applied swarm network communication technology and other IoT concepts to control pumps used to generate artificial rain in atmospheric special effects.

APRIL/2016 – NOVEMBER/2016

### Engineering intern / Firjan, Rio de Janeiro

- Analyzed production lines aiming to automate strategic tasks to optimize production.
- Established Profinet networks between heavy-duty servo motors and Rockwell Programmable Logic Controllers.

JULY/2015 – APRIL/2016

### Programmer / Imperial Botz, Rio de Janeiro

- Participated in robot battle competitions and was directly involved in software and hardware development of robots awarding gold and bronze medals at Robo Games 2016 at California.
- Responsible for programming a line follower robot using track mapping to optimize speed. Went on to win a bronze medal at Robo Games 2016 international competition at California.

APRIL/2015 – JULY/2015

### Robotics technician / PETRUS Oil & Gas, Rio de Janeiro

- Developed a navigation module for an underwater robot capable of communicating with the rest of the vehicle's modules and replacing the original damaged module.

MARCH/2014 – DECEMBER/2014

### **Hardware specialist / Subsea Integrity, Rio de Janeiro**

- Wrote the software of a Proportional–Integral–Derivative controller for an abrasive particle launcher subsystem of a robot used in inspection and maintenance of oil pipelines.
- Established a CAN network between a remote-controlled vehicle used for pipeline inspection and a PC ground station using a BeagleBone Single Board Computer and CAN transceivers.

AUGUST/2011 – MARCH/2014

### **Electronics technician / Cintrax, Rio de Janeiro**

- Prototyping of inspection drones and motor electronic controllers for CNC machines.

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## **Personal projects**

JUNE 2019

### **Memory test / React web app**

- Written to practice the basic concepts about React and advanced JavaScript learned through the online learning platform Pluralsight. <https://miguelpc94.github.io/memory-test-app/>

APRIL 2019

### **Multi-stay Planner / JavaScript algorithm**

- A Genetic Algorithm used to plan the temporary stay schedule in Brazil until move to London after July. Written in JavaScript for Node.js. <https://github.com/miguelpc94/MSP-Core>

NOVEMBER 2018

### **Novel method to generate evolvable circuits / Scientific article**

- Achieved better results than published papers on the subject by renowned authors.
- Wrote an article co-authored by Nuclear Engineering PhD Paulo Silveira about the new method. Being reviewed by the ASoC journal. [Can provide a copy of the manuscript through e-mail.](#)

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## **Education**

JUNE 2018

### **Automation engineering / UNESA, Rio de Janeiro**

- Maintained high grades throughout the course and special interest in developing software to control and analyze complex systems.

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## **Reference**

- Felipe Correia – Manager of the special effects department at TV Globo  
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- Eder Rhis – Executive operation's overseer of the special effects department at TV Globo  
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