

# Daniel Filipe Coelho Rocha

BSc in Electronic and Computers | MSc in Automation and Robotic



🏠 Braga, Portugal | World Geographical Portuguese

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📅 Availability 26/09/1992 |

🚗 B, B1, A

🌐 [daniel-filipe-rocha](#)

## Profile

Specialized in Automation and Robotics, consolidated with vast knowledge in Electronics and Software applied in the automotive industry.

In last years, I have been researching and developing artificial intelligence algorithms. With 7 years of professional experience, involving dedication, persistence and pro-activity in an attempt to improve my knowledge every day, applied for the benefit of the employer. On the basis of this principle, I consider myself an ambitious person to look for challenges that lead me to acquire new knowledge.

## Education

2018-Present



University of Minho  
School of Engineering

PhD Student in Electronic and Computer Engineering

University of Minho, School of Technology, Guimarães, Portugal.

**Keywords:** Machine Learning, Deep Learning, Computer Vision.

**Thesis:** Intelligent system of identification and combination of clothing to blind people

2014-2017



Master's degree in Automation and Robotic

IPCA, School of Technology, Braga, Portugal.

**Dissertation:** "MyEyes- Automatic Combination System of Clothing Parts to Blind People".

In this dissertation, new potential tool to blind people with a development of a Web platform in aid of the combination of clothing for blindness people.

2011-2014



Degree in Electronic and Computer Engineering

IPCA, School of Technology, Braga, Portugal.

02.2014-09.2014 Internship Student in the company  
**DELPHI** Delphi

**Project:** Development of "Electric Diagnostic Application in In-Circuit Test Systems"

## Professional Experience

10.2014-10.2015 Electrotechnical and Computer Engineering in the company D2 Technology



Department of Electrical Engineering, building CNC Machines for the Stone Industry; Electrical schematics; Unit assembly; Client support;

10.2015-02.2018 Quality Analyst Engineer in the company Delphi



Department of Quality, Hardware analysis and report to the current product from the field; 8D Reports; Continuous Improvement; Software Development;

02.2018-09-2021 System Test Engineer in the company Bosch



Development of test software; Development of test systems; Definition of hardware interface for test systems; Study and report the capacity of measurement and test systems; Image Processing;

10.2019-Present Guest Assistant Professor  
IPCA, School of Technical Short Cycles, Braga, Portugal



09.2021-Present Research Engineer  
International Iberian Nanotechnology Laboratory, Braga, Portugal



## Key-Skills

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### Software:

- **Web Development:** PHP; HTML; CSS; JavaScript; Java; SQL;
- **Desktop Development:** Python; C++; C#; Visual Basic; LabView;
- **PLC Programming:** Ladder;
- **Mobile Development:** Android;
- **Low Level Developer:** Assembly; C;
- **Image Processing:** Matlab; OpenCV Framework; HALCON;
- **Machine Learning:** PyTorch, TensorFlow, Keras and Scikit-learn.

**Hardware:** Electronic diagnose; Concepts of elaboration and assembly of electronic Circuits;

### Quality management

**Norms** - ISO 9001 | IATF 16949 | FFA (Failure Field Analysis).

**Quality Tools** - 5S's; 8D; Lean Manufacturing; Green Belts Six Sigma;

## Languages

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### Portuguese

Native proficiency

### English

Advanced user (B2 – without degree)

### French

Intermediate user (A2 – without degree)

## Scientific Activity

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Daniel Rocha, Vítor Carvalho, Eva Oliveira, Joaquim Gonçalves. "MyEyes- Automatic Combination System of Clothing Parts to Blind People: First insights". (2017) 2017 IEEE SeGAH conference – Perth Australia 2 - 4 April 2017.

Daniel Rocha, Vítor Carvalho, Eva Oliveira Joaquim Gonçalves. "MyEyes - Automatic Combination System of Clothing Parts to Blind People: Prototype Validation". (2017) SENSORDEVICES' 2017 Conference. Rome, Italy 10 – 14 September 2017.

Daniel Rocha, Vítor Carvalho, Eva Oliveira, Joaquim Gonçalves. "Development of an Automatic Combination System of Clothing Parts for Blind People: MyEyes", 2018 IFSA Publishing, S.L., 2018. - Sensors & Transducers, Vol 219, Iss 1, Pp 26-33 (2018)

D. Rocha, V. Carvalho, F. Soares, and E. Oliveira, "Extracting Clothing Features for Blind People Using Image Processing and Machine Learning Techniques: First Insights BT - VipIMAGE 2019," 2019, pp. 411–418.

D. Rocha, V. Carvalho, F. Soares, and E. Oliveira, "Design of a smart mechatronic system to combine garments for blind people: first insights"- HealthyIoT 2019 - 6th EAI International Conference on IoT Technologies for HealthCare

D. Rocha, V. Carvalho, F. Soares, and E. Oliveira "A model approach for an automatic clothing combination system for blind people" EAI DLI 2020 - 5th EAI International Conference on Design, Learning & Innovation, 2020

Rocha, D., Carvalho, V., Soares, F., Oliveira, E., & Leão, C. P. (2022). Understand the Importance of Garments' Identification and Combination to Blind People. In T. Ahrām & R. Taiar (Eds.), Human Interaction, Emerging Technologies and Future Systems V (pp. 74–81). Springer International Publishing.

## Awards

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- **Honorable Mentions** "MyEyes - Automatic Combination System of Clothing Parts to Blind People". (2017) 2<sup>st</sup> Symposium of Applied Research of IPCA. Braga, Portugal, 26th May 2017
- **Best Paper Award** "MyEyes - Automatic Combination System of Clothing Parts to Blind People: Prototype Validation". (2017) SENSORDEVICES' 2017 Conference. Rome, Italy 10 – 14 September 2017.