

# Ruben Cubo

PhD in Electrical Engineering at Uppsala University (Sweden) with 5 years expertise using MATLAB, COMSOL, Python, Signal Processing and other mathematical modeling tools in medical applications. Seeking opportunities and new challenges in the fields of Signal Processing or Machine Learning.

## Contact Information

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GitHub <http://github.com/rcubo>

## Relevant Work Experience

### PHD CANDIDATE/RESEARCHER – Electrical engineering

Uppsala University (Uppsala) May 2013 – Jun 2018

- Created a line of research in Brain Electrical Stimulation optimization.
- Published 6 Journal Papers and 9 Conference Papers in peer-reviewed automatic control and system identification meetings.
- Involved in teaching and development of three Automatic Control courses each year.
- Successfully supervised a Master's Project and a Master's Thesis.
- Represented PhD students at several university boards.

### JUNIOR PROGRAMMER – COBOL/CICS/DB2

Mnemo Solutions (Madrid) Nov 2012 – Feb 2013

- Maintained software for a large banking institution.
- Satisfactorily resolved and properly documented bugs in assigned scripts.

### RESEARCH ASSISTANT

Complutense University (Madrid) Sep 2011 – Jul 2012

- Developed a control model for a Cubesat satellite.
- Achieved satisfactory attitude control in simulations after half an orbit.

## Relevant Publications

- C. Binggeli et al. "Lyman continuum leakage versus quenching with the James Webb Space Telescope: The spectral signatures of quenched star formation activity in reionization-epoch galaxies", Monthly Notices of the Royal Astronomical Society, 2018
- R. Cubo and A. Medvedev, "Online tissue conductivity estimation in Deep Brain Stimulation", IEEE Transactions on Control Systems Technology, 2018 (Under Review)
- R. Cubo, M. Åström and A. Medvedev, "Optimization of Lead Design and Electrode Configuration in Deep Brain Stimulation", International Journal On Advances in Life Sciences, vol. 8, Issue 12, pp. 76-86, 2016.
- R. Cubo, M. Åström and A. Medvedev, "Optimization-Based Contact Fault Alleviation in Deep Brain Stimulation Leads", IEEE Transactions on Neural Systems & Rehabilitation Engineering, vol. 26, Issue 1, pp. 69-76, 2018.

## Key Skills

### Programming Languages:

- MATLAB
- Python
- C++

### Knowledge Expertise

- Automatic Control
- COMSOL
- Signal Processing
- Machine Learning
  - Scikit-learn
- Deep Learning
  - Keras with GPU
- Git
- Project Management
- Marketing

### Languages

- Spanish (Native)
- English (Business)
- Japanese (Intermediate)
- Swedish (Intermediate)

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## Education

### **MACHINE LEARNING ENGINEER NANODEGREE**

Udacity

Jul 2017 – Sep 2017

### **MSC IN PHYSICS – Specialized in Systems and Control**

Complutense University (Madrid)

Sep 2007 – Jul 2012

