Luis Cruz's Curriculum Vitae
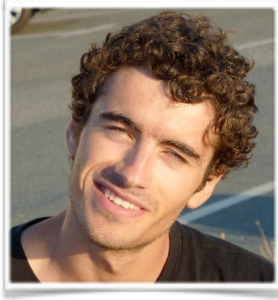
FULL NAME Luís Miranda da Cruz	**EMAIL** L.Cruz@tudelft.nl	**PHONE** +351 253 837 449
DATE OF BIRTH January 15, 1989	**2ND EMAIL** luismirandacruz@gmail.com	**MOBILE (PT)** +351 912 554 147
ADDRESS Rua da Forca, 30 4755-066 Barcelos Portugal	**WEBPAGE** https://luiscruz.github.io **TWITTER** @luismcruz	**MOBILE (NL)** +310 640 222 135

Profile

I am passionate about learning new things and I am very dedicated to everything I do in my life. I am a motivated person and I like to do stuff that challenge creativity. Easy going and honest.

Research Interests

Software Engineering, Machine Learning Engineering, Green Computing, Mobile Computing, Energy Efficiency, Empirical Software Engineering, Software Design Patterns, Automatic Refactoring, Open Source Software Development

Education

INESC-ID and University of Porto | 2013–2019

Ph.D. in Computer Science - MAP-i doctoral program

Title - *Tools and Techniques for Energy-Efficient Mobile Application Development*

Advisor - Prof. Rui Abreu

Faculdade de Engenharia da Universidade do Porto (FEUP) | 2006–2011

Master in Informatics and Computing Engineering (MIEIC)

Final grade — 17/20 — **A** on the European Grading Scale

M.Sc. thesis - *Humanoid Robot Nao: Developing Behaviours for Soccer Humanoid Robots*. July, 2011

Escola Secundária de Barcelinhos (High School) | 2003–2006

Science course | Final Grade - 18.4/20

Working Experience

- **Scientific coordinator of AI for Fintech Research at ING, January 2020 – to date.**
- **Postdoc Researcher at TU Delft, September 2019 – to date.**
- Junior Researcher at INESC ID, January 2017 – August 2019.
- Assistant Lecturer at IST/University of Lisbon of the unit course Software Engineering in 2017/18.
- Intern at Palo Alto Research Center (Xerox PARC) May 2015 – December 2015.
- Assistant Lecturer at FEUP of the unit course Software Development Laboratory (LDSO) 2013/14 and 2014/15.
- Software architect and Web developer at Tecla Colorida, Lda., 2012 – 2013.
- Researcher of 'Escolinhas Criativas' project from University of Porto, September 2011 – March 2012.
- Researcher at AMADEUS project - *Aspects and Compiler Optimizations for Matlab System Development* in August-October 2009 and July – September 2010.
- Junior assistant at FEUP of the unit course Computer Graphics 2009/10.

Peer-reviewed journal articles

- **Cruz, L.**, Abreu, R., Lo, D. (2019). To the Attention of Mobile Software Developers: Guess What, Test your App!. In Journal of Empirical Software Engineering.

- **Cruz, L.**, Abreu, R. (2019). Catalog of Energy Patterns for Mobile Applications. In Journal of Empirical Software Engineering. Online Appendix: https

Articles in conference proceedings

- **Cruz, L.**, Abreu, R., Grundy, J., Li, L., Xia, X. (2019). Do Energy-oriented Changes Hinder Maintainability?. The International Conference on Software Maintenance and Evolution (ICSME).

- **Cruz, L.**, Abreu, R. (2019). To the Attention of Mobile Software Developers: Guess What, Test your App!. Empirical Software Engineering.

- **Cruz, L.**, Abreu, R. (2019). EMaaS: Energy Measurements as a Service for Mobile Applications!. IEEE/ACM 41st International Conference on Software Engineering: New Ideas and Emerging Technologies Results Track (ICSE-NIER)

- **Cruz, L.**, Abreu, R. (2018). Using Automatic Refactoring to Improve Energy Efficiency of Android Apps. In CIbSE XXI Ibero-American Conference on Software Engineering. **Best Paper Award**

- **Cruz, L.**, Abreu, R. (2017). Performance-based Guidelines for Energy-efficient Mobile Applications. In IEEE/ACM International Conference on Mobile Software Engineering and Systems, MOBILESoft.

- **Cruz, L.**, Abreu, R., Rouvignac J. (2017). Leafactor: Improving Energy Efficiency of Android Apps via Automatic Refactoring. In IEEE/ACM International Conference on Mobile Software Engineering and Systems, MOBILESoft.

- **Cruz, L.**, Rubin, J., Abreu, R., Ahern, S., Eldardiry, H., & Bobrow, D. G. (2015). A wearable and mobile intervention delivery system for individuals with panic disorder. In Proceedings of the 14th International Conference on Mobile and Ubiquitous Multimedia (pp. 175–182). ACM.

- **Cruz, L**., Reis, L. P., Lau, N., & Sousa, A. (2012). Optimization approach for the development of humanoid robots' behaviors. In *Advances in Artificial Intelligence–IBERAMIA 2012* (pp. 491–500). Springer Berlin Heidelberg.

- **Cruz, L.**, Reis L. P.,, Rei, L. (2011). Generic Optimization of Humanoid Robots' Behaviours. In Proceedings of the 15th Portuguese Conference on Artificial Intelligence (pp. 385–397)

- Strecht, P., **Cruz, L**., Soares, C., Mendes-Moreira, J., and Abreu, R. (2015). A comparative study of regression and classification algorithms for modelling students' academic performance. In *Educational Data Mining* 2015.

Skills

Informatics

- Programming Languages (Python, Ruby, Swift, C/C++, Java, OCAML, JavaScript)

- Notation languages (HTML5, CSS, UML, SASS, JSON, XML, Markup)

- WEB technologies (Ruby on Rails, Sinatra, NodeJS, Django, AJAX, jQuery, Bootstrap, Neo4J, SQL, AngularJS, D3, Jekyll)

- Mobile applications (Apache Cordova / Phonegap, Ionic Framework, iOS, Android, Espresso, Responsive Design)

- Data Science (Scikit-learn, SciPy, Pandas, Numpy, Matplotlib, Jupyter Notebooks, R)

- Other (Git, Matlab, LaTeX)

Languages

- 1st language: Portuguese | 2nd language: English

- Scrum, Extreme Programming

Awards

- Best Presentation Award (2019) – BENEVOL, The 18th Belgium-Netherlands Software Evolution Workshop.
- Best Paper Award (2018) – CIbSE XXI Ibero-American Conference on Software Engineering.
- Academic Excellence Award (2008) – 2nd year of MIEIC at FEUP, with a grade of 17.9/20.

Relevant Training

- Attended the Multidisciplinary Summer School on Design as Inquiry 2011, in Kiel, Germany.
- Attended the Learning Analytics Summer Institutes Local Madrid (LASI-local Madrid 2014)
- Completed the CS190.1x: Scalable Machine Learning online course offered by BerkeleyX
- Completed Data Analyst Nanodegree by Udacity
- Attended the *Second NESUS Winter School 2017* on convergence of Big Data with HPC and Exascale systems
- Visiting Researcher at Monash University in 2019

Administrative experience

- Web Chair of ICST 2020
- Organizing Member of ISMIR 2019
- Tool Demos & Mobile Apps Co-Chair of MobileSoft 2019
- Publicity and Social Media Co-Chair of MOBILESoft 2018
- Local Chair of QRS 2018
- Student Volunteer at CIbSE 2018
- Student Volunteer at ICST 2017
- Volunteer at the speakers team of Web Summit Lisbon 2016