Romain Pinquié, Ph.D.

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WORK EXPERIENCE

11/2016 – 08/2017
- Post-doctoral Research Fellow in Model- and Simulation-Based Systems Engineering
  Arts & Métiers ParisTech, Information Science & Systems Lab UMR CNRS 7296, France
  In partnership with: Airbus Helicopters (full-time)
  Mission: *R&T on a model- and simulation-based systems engineering method to specify, validate, design, and verify engineered systems. Experimentation with the MathWorks suite on electrical and landing gear systems. Coaching of Systems Design Responsibles.*

10/2013 – 10/2016
- Doctoral Research Fellow in Product Design
  Arts & Métiers ParisTech, Information Science & Systems Lab UMR CNRS 7296, France
  In partnership with: Dassault Systèmes's spin-off Keonys
  Mission: *Research on the application of data science techniques (machine learning, text mining, natural language processing, graph theory, etc.) to gain insight and discover opportunities in a massive set of text-based requirements and make informed strategic decisions early on.*

  1. *Teaching 40 H of modelling and simulation of multi-engineering systems with Modelica to engineering post-graduate students at EPF Montpellier School of Engineeering.*
  2. *Teaching 35 H of computer-aided design with 3D Experience to engineering post-graduate students at Arts & Métiers ParisTech School of Engineering.*

02/2013 – 10/2013
- R&D Engineer in Model- and Simulation-Based Systems Engineering
  Supméca, QUARTZ/LISMMA Lab, France
  Mission: *R&D on the modelling and simulation of multi-engineering technical systems with Dymola and the 3D Experience RFLP Catia Systems framework.*

04/2012 – 11/2012
- Trainee as Prognostics & Health Management Engineer
  PHM Technology, Australia
  Mission: *R&D of Prognostics and Heal Management technology for complex systems.*

05/2011 – 08/2011
- Trainee as Test Engineer and Mechanical Designer
  Hamilton Sundstrand's Ratier Figeac Unit, France
  Mission: *Qualification testing of aerospace equipments and design of test benches.*

02/2010 – 03/2010
- Trainee as Stress Analyst
  ECTA, France
  Mission: *Development of computer-aided technologies for stress analysis of wood structures.*

04/2008 – 05/2008
- Trainee as Mechanical Designer
  ISP System, France
  Mission: *Design of an aircraft door motorised screw jack for maintenance operations.*

EDUCATION

2013 – 2016
- Ph.D. Product Design
  Arts & Métiers ParisTech, Information Science & System Laboratory UMR CNRS 7296, France
  Thesis title: *A collaborative requirement mining framework*

2011 – 2012
- M.Sc. Computational & Software Techniques in Engineering – Computer Aided Engineering
  Cranfield University, School of Engineering, Applied Mathematics & Computing Group, UK

EDUCATION (continued)

2009 – 2012 ■ M.Eng. Computer Aided Engineering (French Engineering *Grandes Écoles*)
ESTIA Institute of Technology, France

2008 – 2009 ■ Preparatory classes to French Engineering *Grandes Écoles*, Lycée Louis Rascol, France

2006 – 2008 ■ B.Sc. Mechanical Engineering specialising in Aerospace Science, Toulouse 3 University, France

Research Publications

Journal Articles

1. Pinquié, R., Véron, P., Segonds, F., & Croué, N. (2016). Requirement mining for model-based product design. *International Journal of Product Lifecycle Management*, *9*(4), 305–332.
2. Pinquié, R., Rivest, L., Segonds, F., & Véron, P. (2015). An illustrated glossary of ambiguous terms used in discrete manufacturing. *International Journal of Product Lifecycle Management*, *8*(2), 142–171.

Conference Proceedings

1. Pinquié, R., Micouin, P., Véron, P., & Segonds, F. (2016). Property Model Methodology: a case study with Modelica. In *Proceedings of the 11th Int. Conf. on Tools and Methods of Competitive Engineering (TMCE 2016)* (pp. 79–91). Aix-en-Provence, France.
2. Pinquié, R., Véron, P., Segonds, F., & Croué, N. (2015a). A collaborative requirement mining framework to support oems. In *Proceedings of the 12th IFIP Int. Conf. on Cooperative Design, Visualisation and Engineering (CDVE 2015)* (pp. 105–114). Mallorca, Spain.
3. Pinquié, R., Véron, P., Segonds, F., & Croué, N. (2015b). Natural language processing of requirements for model-based product design with enovia-catia v6. In *Proceedings of the 12th IFIP Int. Conf. on Product Lifecycle Management (PLM 2015)* (pp. 205–215). Doha, Qatar.

Skills

Languages	■ French (native), English (fluent), and Spanish (daily life)
Eng. Methods	■ Concurrent, Value-driven, Axiomatic, and Set-based design, PMM, C-K theory
Simulation	■ SystemModeler, Catia Systems, Dymola, Simulink, Design Verifier, Stateflow, Simscape
Modelling	■ SysML, Capella, FFBD, SADT, APTE
CAD	■ Catia V5, 3D Experience (Catia V6)
Safety	■ MADe PHM, FMECA, FTA, RBD
Data science	■ Weka, Python ScikitLearn and NLTK, Stanford CoreNLP, Neo4J
Sc. computing	■ Matlab, Mathematica, Python NumPy and Matplotlib
Coding	■ Java, Python, LaTeX, HTML, CSS, Eclipse, PyCharm
Standards	■ ISO 15288, ARP 4754A, EIA 632, NASA, INCOSE Handbook

Associations, Awards & Qualifications

2016-17 ■ Active member of the French chapter of INCOSE (Association Française d'Ingénierie Système) : Requirements Engineering and MBSE working groups. Member of the PLM Lab association.

2017 ■ Qualified by the French National Board of Universities (CNU) as *Maître de conférences* (Assistant Professor) in mechanical engineering (Section CNU 60).

2016 ■ Nominated for the Pierre Bézier doctoral dissertation award that recognises and encourages superior research and writing by doctoral candidates from Arts & Métiers ParisTech (In progress).