ROMAIN PINQUIÉ

Date of Birth: 31 January 1988
Nationality: French

Arts & Métiers ParisTech[a]
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Dr.-Ing. Systems Engineering

WORK EXPERIENCE

10/2013–10/2016 **Ph.D Candidate - A Requirement Mining Framework**
Arts & Métiers ParisTech - Institut Carnot ARTS
Laboratoire des **S**iences de l'Information et des **S**ystèmes - LSIS UMR CNRS 7296
Industrial partnership: Dassault Système's spin-off Keonys

Proposition: A collaborative requirement mining framework to enable subcontractors to gain insight and discover opportunities in a massive set of text-based requirements so as to make effective strategic decisions early on.

Skills: Requirements engineering; Natural language processing; Machine learning; Graph theory; Data visualisation; Multivariate analysis.

Concurrent activities:

- Research on the implementation of the model-based systems engineering Property Model Methodology with Modelica. To be published in: *Pinquié et al. "Property Model Methodology: a case study with Modelica", in: Tools and Methods of Competitive Engineering, 09-13 May 2016, Aix-en-Provence, France.*

- Active member of the working group that gathers the INCOSE's French chapter AFIS and the French PLM Lab association which studies how to connect PLM with Systems Engineering.

- Teaching - Computer Aided Design - 32H. Introduction to solid modelling and mechanical assembly using ENOVIA/CATIA V6 to the first-year engineering postgraduate students at Arts & Métiers ParisTech.

- Teaching - Systems Modelling & Simulation - 16H. Introduction to systems modelling and simulation using Dymola to the final-year engineering postgraduate students at École Polytechnique Féminine.

02/2013–10/2013 **R&D Engineer in Computer-Aided Engineering**
Institut Supérieur de Mécanique de Paris - SupMéca
Laboratoire d'Ingénierie des **S**ystèmes **M**écaniques et des **MA**tériaux - LISMMA

Activity: I focused on the use of ENOVIA/CATIA V6 environment to not only design 3D parametric digital mock-up, but also model and simulate multi–engineering systems based on the Model-Based Systems Engineering CATIA V6 RFLP method and Dymola.

Skills: Systems engineering; Modelling and simulation.

04/2012–11/2012	**Trainee as Prognostics and Health Management Engineer** PHM Technology Pty Ltd, Melbourne, Australia

Activity: R&D of Prognostics and Health Management design technology in application to complex systems.

Skills: Systems functional modelling and analysis (FMECA, FFBD); Probabilistic reliability engineering (RBD, FTA, Monte-Carlo); Safety analysis (HaZop, LOPA, SIL).

05/2011–09/2011	**Trainee as Mechanical Design and Test Engineer** Hamilton Sundstrand's Ratier-Figeac unit
02/2010–04/2010	**Trainee as Stress Engineer** Études et Coordination Technique d'Acquitaine
04/2008–06/2008	**Trainee as Mechanical Engineer** ISP System

EDUCATION

2011–2012	**Cranfield University, Applied Mathematics and Computing Group** MSc Computational & Software Techniques in Engineering, option Computer-Aided Engineering
2009–2012	**ESTIA Institute of Technology** Master's Degree in Computer-Aided Engineering
2008–2009	**Preparatory classes for the competitive entrance exam to French Engineering School**
2006–2008	**Paul Sabatier University** Bachelor's Degree in Mechanical Engineering specialised in Aerospace Sciences

LANGUAGES

- **French:** Native proficiency *(ILR Level 5)*
- **English:** Professional working proficiency *(ILR Level 3)*
- **Spanish:** Limited working proficiency *(ILR Level 2)*

SKILLS

- **CAX & PLM:** ENOVIA-CATIA V6/5 (Part and Assembly Design, Drafting, Wireframe and Surface, Generative Shape Design, Freestyle, Knowledge Advisor, Prismatic & Lathe Machining, Generative Structural Analysis), ABAQUS CAE.

- **Systems Engineering:** Catia V6 RFLP, Modelica (SystemModeler, Dymola, Catia V6 DBM, OpenModelica), Simulink, Axiomatic design, PMM, SysML, APTE, FAST, SADT, FFBD.

- **RAMS:** MADe, FMECA, FTA, RBD.

- **Data Science:** Weka, R (tm, TextTools, ggplot2), Python (numpy, matplotlib, scikit-learn), Stanford CoreNLP, Apache Tika, Neo4J, D3.js, WordNet, ConceptNet 5.

- **Progamming:** Java, JSF, Eclipse, Maven, JavaScript, CSS, HTML, Bootstrap, PrimeFaces, BootFaces, Jsoup, Jdom, LaTeX

REFEREES

Dr Carol A Armitage	**Dr Kevin Hughes**	**Dr Jacek Stecki/Chris Stecki**
Lecturer and Research Fellow	Research Fellow/MSc Course Director	Principal Engineer/CEO
Cranfield University	Cranfield University	PHM Technology Pty Ltd
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