

Miguel Amável Pinheiro

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EDUCATION

CZECH TECH. UNIVERSITY

PURSUING A PHD IN CYBERNETICS
 Focus on graph matching and image registration in medical imaging
 2011-Present | Prague, Czech Rep.

UNIVERSITY OF PORTO

MSC IN ELECTRICAL AND COMPUTERS ENGINEERING
 Major in Telecommunications
 Minor in Multimedia Communications
 2005-2010 | Porto, Portugal

CHALMERS UNI. OF TECH.

ERASMUS PROGRAM
 2008 | Gothenburg, Sweden

SKILLS

PROGRAMMING

C • C++ • C# • Java • Matlab
 ASP.NET • Flash • Javascript
 SQL • PL/SQL • Oracle
 Xcode • Visual Studio • \LaTeX
 iOS • Android

LANGUAGES

Portuguese, English Fluent
 Spanish, Czech Intermediate

INTERESTS

Basketball • Football
 Guitar • Movies

EXPERIENCE

CENTER FOR MACHINE PERCEPTION RESEARCHER

Sep 2011 – Present | Prague, Czech Republic

- The main work is automatic registration of medical images featuring tree and graph-shaped structures using graph and point cloud information
- Teaching assistant in Medical Imaging Systems

EPFL RESEARCH ASSISTANT

Aug 2013 – Oct 2013 | Lausanne, Switzerland

- Developed an automatic vessel segmentation and registration algorithm
- Cooperation with a team of neuroscientists at the University of Geneva

EPFL RESEARCH ASSISTANT

Sep 2012 – Nov 2012 | Lausanne, Switzerland

- Created the Active Testing Search algorithm, which finds the matching between graphs and point clouds related by a nonlinear transformation
- Cooperation with the Institut de Robòtica i Informàtica from Barcelona, Spain

NOVABASE CONSULTANT, SOFTWARE DEVELOPER

Sep 2010 – Aug 2011 | Lisbon, Portugal

- Developing software in the banking sector to a private client, involving the information of management and architecture of a database
- Working with Oracle SQL related applications, as well as ASP.NET front-ends

INESC RESEARCH ASSISTANT

Sep 2009 – Aug 2010 | Porto, Portugal

- Developed an automatic line detector for the monitoring of cables in cable-stayed bridges or high-voltage power lines through computer vision
- Worked on a new model for a person in a people tracking algorithm

SELECTED PUBLICATIONS

E. Serradell, M.A. Pinheiro, R. Sznitman, J. Kybic, F. Moreno-Noguer, P. Fua
Non-Rigid Graph Registration using Active Testing Search
 IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2015

M.A. Pinheiro, J. Kybic
Path Descriptors for Geometric Graph Matching and Registration
 International Conference on Image Analysis and Recognition (ICIAI), 2014

P. Głowacki, M.A. Pinheiro, R. Sznitman, E. Türetken, D. Lebrecht, A. Holtmaat, J. Kybic, P. Fua
Reconstructing Evolving Tree Structures in Time Lapse Sequences
 Computer Vision and Pattern Recognition (CVPR), 2014

M.A. Pinheiro, R. Sznitman, E. Serradell, J. Kybic, F. Moreno-Noguer, P. Fua
Active Testing Search for Point Cloud Matching
 Information Processing in Medical Imaging (IPMI), 2013

P. Carvalho, M. Pinheiro, J.S. Cardoso, L. Corte-Real
A Shortest Path Approach for Vibrating Line Detection and Tracking
 Iberian Conference on Pattern Recognition and Image Analysis (IbPRIA), 2011