Hernani Pereira Gomes <u>Costa</u>

Departamento de Engenharia Informática, FCT

Pólo II - Pinhal de Marrocos

3030-290 - Coimbra, Portugal

Phone: +351 916 244 743

Fax: +351 239 701 266

hpcosta@dei.uc.pt

Overview

My main research interest lie in the area of Artificial Intelligence, especially its practical application in the fields of Information Extraction, Information Retrieval, Natural Language Processing, Computational Intelligence and Intelligent Transportation Systems, Recommender Systems, Multiagent Systems and Affective Computing.

Education

- **MSc**   CISUC, University of Coimbra, Portugal
  Informatics Engineering   *2007-2010*
  - MSc in Computer Science, University of Coimbra.
  - Thesis: *"Automatic Extraction and Validation of Lexical Ontologies from text"* (18/20).

- **BSc**   University of Coimbra, Portugal
  Informatics Engineering   *2004-2010*
  - BSc in Computer Science, University of Coimbra.

Work Experience

- **Researcher**   Coimbra, Portugal
  FASSIT project, CISUC   *Dec. 2010 - Oct. 2013*
  - Prototype of an Advanced Travel Information System.

- **Industry**   Coimbra, Portugal
  Spotter   *Jun. 2013 - Jul. 2013*
  - Harvesting & Sourcing.

- **Teaching**   Coimbra, Portugal
  Coimbra Institute of Engineering (ISEC)   *Sep. 2012 - Jan. 2013*
  - Programming and Algorithms.

- **Co-orientation**   Coimbra, Portugal
  Luís Reis, MSc student   *Sep. 2011 - Sep. 2012*
  - MSc in Computer Science, University of Coimbra.
  - Thesis: "Recommender System based on Knowledge". Final mark: 17/20.

- **Teaching** — Coimbra, Portugal
  Escola Profissional da Lousã — *Sep. 2010 - July 2012*
    - Operating Systems, Communication Networks and Computers Architecture.
- **Researcher** — Coimbra, Portugal
  Linguateca, FCCN — *Sep. 2011 - Dec. 2011*
    - R&D an online service for browsing Portuguese semantic relations.
- **Researcher** — Coimbra, Portugal
  BII (research integration scholarship), CISUC — *Oct. 2009 - Oct. 2010*
    - Semi-automatic construction of a Portuguese ontology.
- **Researcher** — Coimbra, Portugal
  ONTO.PT project, CISUC — *Sep. 2009 - Sep. 2010*
    - Created NLP algorithms to extract and validate semantic knowledge.
    - Tested and integrated *Google* and *Yahoo API* for the semantic knowledge validation task.
- **Researcher** — Coimbra, Portugal
  KDigg project, CISUC — *Sep. 2009 - Jan. 2010*
    - Implemented automatic algorithms to extract semantic information from ideas & documents.

Publications

- **Published Books**

    - COSTA, H. *Automatic Extraction and Validation of Lexical Ontologies from text: Creating Lexical Ontologies from text.* LAP LAMBERT Academic Publishing, October 2011 [Amazon .com, .co.uk, .de, .fr]

- **Published Articles**

    - COSTA, H., FURTADO, B., PIRES, D., MACEDO, L., AND CARDOSO, A. Recommending POIs based on the User's Context and Intentions. In *Highlights on Practical Applications of Agents and Multi-Agent Systems*, vol. 365 of *Communications in Computer and Information Science.* Springer, Salamanca, Spain, May 2013, pp. 166–177 [pdf] [Award of Scientific Excellence]
    - COSTA, H., AND MACEDO, L. Emotion-Based Recommender System for Overcoming the Problem of Information Overload. In *Highlights on Practical Applications of Agents and Multi-Agent Systems*, vol. 365 of *Communications in Computer and Information Science.* Springer, Salamanca, Spain, May 2013, pp. 178–189 [pdf]
    - COSTA, H., FURTADO, B., PIRES, D., MACEDO, L., AND CARDOSO, A. Context and Intention-Awareness in POIs Recommender Systems. In 6th *ACM Conf. on Recommender Systems, 4th Workshop on Context-Aware Recommender Systems* (Dublin, Ireland, September 2012), RecSys'12, ACM, p. 5 [pdf]
    - GONÇALO OLIVEIRA, H., COSTA, H., AND SANTOS, D. Folheador: browsing through Portuguese semantic relations. In 13th *Conf. of the European Chapter of the Association for Computational Linguistics* (Avignon, France, April 2012), EACL'12, ACL Press, pp. 35–40 [pdf, Poster]
    - GONÇALO OLIVEIRA, H., COSTA, H., AND SANTOS, D. Browsing Portuguese with Folheador. In *Demo Session of PROPOR 2012, 10th Int. Conf. on the Computational Processing of the Portuguese Language* (Coimbra, Portugal, April 2012), PROPOR'12, p. 3 [pdf, Poster]

  - COSTA, H. O desenho do novo Folheador. Tech Report, Linguateca, FCCN, December 2011 [pdf]
  - GONÇALO OLIVEIRA, H., ANTÓN PÉREZ, L., COSTA, H., AND GOMES, P. Uma grande rede léxico-semântica para o português extraída a partir de dicionários electrónicos. *Linguamática 3*, 2 (December 2011), 23–38 [pdf]
  - COSTA, H., GONÇALO OLIVEIRA, H., AND GOMES, P. Using the Web to Validate Lexico-Semantic Relations. In *15th Portuguese Conf. on Artificial Intelligence* (Lisbon, Portugal, October 2011), vol. 7026 of *EPIA '11*, Springer, pp. 597–609 [pdf] [Nominated for Best Paper Award]
  - GONÇALO OLIVEIRA, H., COSTA, H., AND GOMES, P. Extracção de conhecimento léxico-semântico a partir de resumos da Wikipédia. In *INForum 2010 - II Simpósio de Informática, Track on Gestão e Tratamento de Informação* (Braga, Portugal, September 2010), INForum'10, pp. 537–548 [pdf]
  - COSTA, H., GONÇALO OLIVEIRA, H., AND GOMES, P. The Impact of Distributional Metrics in the Quality of Relational Triples. In *19th European Conf. on Artificial Intelligence, Workshop on Language Technology for Cultural Heritage, Social Sciences, and Humanities* (Lisbon, Portugal, August 2010), ECAI'10, pp. 23–29 [pdf]

- **MSc Thesis**

  - COSTA, H. Automatic Extraction and Validation of Lexical Ontologies from text. Master's thesis, University of Coimbra, Faculty of Sciences and Technology, Department of Informatics Engineering, Coimbra, Portugal, September 2010

Software

Folheador: An online service for browsing through Portuguese semantic relations.

iPois: An Intelligent Traveler Information System based on a generic selective attention-based, multi-agent information system.

Skills

Languages: Java, C#, C/C++, PHP, HTML, CSS, Neo4j, JavaScript, LaTeX, among others.

Operating Systems: MacOS, Linux, Windows, Android OS.

Applications/Programs: Eclipse, NetBeans, Visual C#, Maven, SVN, among others.

Miscellaneous: Software configuration management, strong verbal and written communication skills, excellent troubleshooting and debugging skills, exceptional problem solving skills, good team skills.

Interests

Academic: Researching in NLP area, more specifically in IE and IR. In addition, exploring new methods of selective attention in Intelligent Transportation Systems.

Sports: Playing football and swimming.

Computers: Currently exploring Android OS tools.

Others: Studding English and Spanish.