# Enrique Flores Saez

## Work experience

2012–Today **Researcher**, *Universitat Politècnica de València (UPV)*, Spain.

- Research focused on source code monolingual and cross-lingual re-use detection.
- o Source code monolingual and cross-lingual retrieval.
- Developer of source code re-use detection systems inspired in Natural Language Processing techniques
- Organiser of two editions of source code re-use detection competitions (see http://goo.gl/ZcriU9 and http://goo.gl/PPbtsy)
- Participation in the project: "TEXT-ENTERPRISE 2.0: Text comprehension techniques applied to the needs of the Enterprise 2.0" collecting corpora and developing tagging tools for source code re-use detection research purposes.
- To see the list of publications related to my research work, please visit my Google Scholar at https://goo.gl/Rhq1nz
- Feb-May **Visitor Researcher**, *INAOE*, *Mexico*, Research Group: Lab. of Language 2015 Technologies, Participation in the project: WIQ-EI project.
- Jan 2015 **Visitor Researcher**, *Center for Computing Research, National Polytechnic Institute, Mexico*, Research Group: Lab. of NLP, Participation in the project: WIQ-EI project.
- Aug-Dec Visitor Researcher, Center for Computing Research, National Polytechnic In-2012 stitute, Mexico, Research Group: Lab. of NLP, Participation in the project: WIQ-EI project.
- Jun-Nov **Software Engineer**, *Dept. of Computer Systems and Computation*, Universitat Politècnica de València, Participation in project: Language Technologies applied to systems modelling Information (TeLMoSis).
  - The main objective of TeLMoSis project is to combine advances in Human Language Technologies, particularly semantic analysis, with information system modelling.

#### Research proyects

- Oct–Dec Senior Technician, PRHLT Research Center, Universitat Politècnica de València, JITL: Automatic internationalisation for locating JIT web interfaces, Ministry of Education, Culture and Sport (MECD) project SP20140775.
- Jan-May Senior Technician, PRHLT Research Center, Universitat Politècnica de València, DIANA-APPLICATIONS Finding Hidden Knowledge in Texts: Applications project: TIN2012-38603-C02-01.
- 2010–2014 **Government Scholarship Researcher Training**, *Spanish Ministry of Science and Innovation*, Universitat Politècnica de València, TEXT-ENTERPRISE 2.0: Text comprehension techniques applied to the needs of the Enterprise 2.0 project: TIN2009-13391-C04-03.

- 2011–2015 **WIQ-Ei Project**, *Web Information Quality Evaluation Initiative*, Universitat Politècnica de València, IRSES project (grant no. 269180) within the FP7 Marie Curie People Framework.
- Dec-Mar **Bilateral project**, Applications of Natural Language Processing to the Need of 2011–2013 the University, UPV, AECID-PCI AP/043848/11.
  - Jun-Nov Scholarship expertise, Dept. of Computer Systems and Computation, Uni-2010 versitat Politècnica de València, The main objective of TeLMoSis project is to combine advances in Human Language Technologies, particularly semantic analysis, with information system modelling..

#### Teaching experience

- Jan-Jun Subject: Information storage and retrieval systems, *School of Engineering* 2014 *in Computer Science*, Universitat Politècnica de València, Teaching Assistant.
- Jan-Jun Subject: Information storage and retrieval systems, *School of Engineering* 2013 *in Computer Science*, Universitat Politècnica de València, Teaching Assistant.
- Mar 2013 **Plagiarism and re-use detection Laboratory**, *MISC laboratory*, University of Constantine 2, 1 week.
- Apr 2013 **Plagiarism detection Laboratory**, *idEC*, *Master in Forensic Linguistics*, IULA-Universitat Pompeu Fabra, 4h.

#### Education

- Feb 2012 PhD in Computer Science, Universitat Politècnica de València.
- Apr 2016 Title of the thesis: Mono- and Cross-lingual Source Code Re-use Detection. (In (expected) progress)
  - Research stays at the National Polytechnic Institute of Mexico and National Institute of Astrophysics Optics and Electronics (Mexico) (Aug Dec 2012 and Jan Apr 2015).
  - Master's Source code re-use across programming languages. In this work are proposed two models for source code re-use detection and their performance at monoand cross-lingual level. Average Grade: 9.5 out of 10. Specialisation in Pattern Recognition and Language Technologies.
- 2009–2012 Master's Degree in Artificial Intelligence, Pattern Recognition and Digital Imaging, *Universitat Politècnica de València*.
  - CS Final Development of a system for managing collaborative work. Web application Project for managing tasks and questions in a workgroup. It allows different types of surveys, mailing lists, ratings and comments.
- 2004–2010 **Computer Science Degree (5-years degree)**, School of Engineering in Computer Science, Universitat Politècnica de València, Computer Science.

  Specialisation in Artificial Intelligence and Pattern Recognition.

### Lectures and talks

School of **Universitat Politècnica de València**, *Computers and code: The coding world*, Engineering Jun 2015.

in Computer Science

School of **Universitat Politècnica de València**, Can we automatically detect plagia-Engineering rism?, Jun 2014.

in Computer

Science

- Mexico city, **Universidad Autónoma Metropolitana**, *Talk: "Source Code Re-use Plagia-Mexico rism Detection"*, 30 Jan 2015.
- Mexico city, **Universidad Autónoma Metropolitana**, *Talk: "PAN@FIRE: Detection of Mexico Source Code re-use (SOCO)"*, 30 Jan 2015.
  - Toluca, **Universidad Autónoma del Estado México**, *Talk: "Source Code Re-use Pla-*Mexico *giarism Detection"*, 23 Jan 2015.
  - Toluca, **Universidad Autónoma del Estado México**, *Talk: "PAN@FIRE: Detection of Mexico Source Code re-use (SOCO)"*, 23 Jan 2015.
  - Sevilla V Jornadas Tratamiento de la Información Multilingüe y Multimodal (TIMM), Doctoral Consortium: "Cross-Language Source Code Re-use Detection", Jun 2014.
- Doctoral **Universitat Politècnica de València**, *Computers and code: The coding world*, Consortium Jun 2015.
  - Puebla, Instituto Nacional de Astrofísica, Óptica y Electrónica, Talk: "Cross-Mexico Language Source Code Re-use", 6 Dec 2012.
- Mexico city, **University of London**, *Talk: "Detection of Cross-Language Source Code Re-*Mexico *use"*, 9 Oct 2012.
  - Puebla, Instituto Nacional de Astrofísica, Óptica y Electrónica, Talk: "Cross-Mexico Language Source Code Re-use", 6 Dec 2012.
  - Puebla, Instituto Nacional de Astrofísica, Óptica y Electrónica, 9th Workshop of Mexico Human Language Technologies, 18-19 Oct 2012.
- Constantine, **University of Constantine 2**, *Talk: "Plagiarism and re-use detection"*, 2 Mar Algeria 2012.

#### Events and conferences

*SEM 2015	Publication Co-Chair	The fourth joint o	conference on lexical and computational
			semantics
CLEF 2013	Member of Local organis	ing committee	Conference and Labs of the Evaluation Forum
CERI 2012	Member of organising co	mmittee 2	2nd Spanish Conference on Information Retrieval
SWERC 2013	Judge Committee Membe	er S	Southwestern Europe Regional Contest

SWERC Judge Committee Member

Southwestern Europe Regional Contest

2012

CLOCALPROG Judge Committee Member

Local programming competition - UPV

CLOCALPROG Judge Committee Member 2012

Local programming competition - UPV

Languages

Spanish Mother tongue Valencian Mother tongue English Intermediate level

Programming skills

Languages Java, C++, Python, Unix Shell, GNU Octave, Matlab, LISP, SQL, MySQL, HTML,

XML, Haskell, Prolog

Software Lucene, Weka, NLTK, Apache, Tomcat, SVN

#### **Publications**

E. Flores, P. Rosso, E. Villatoro-Tello, L. Moreno, R. Alcover, and V. Chirivella, "PAN@FIRE: Overview of CL-SOCO track on the Detection of Cross-Language SOurce COde Re-use," in FIRE 2015 Working Notes. Seventh International Workshop of the Forum for Information Retrieval Evaluation, Gandhinagar, India, 4-6 December, 2015.

E. Flores, P. Rosso, L. Moreno, and E. Villatoro-Tello, "On the detection of source code re-use," in Proceedings of the Forum for Information Retrieval Evaluation, FIRE '14, (New York, NY, USA), pp. 21-30, ACM, 2015.

E. Flores, A. Barrón-Cedeño, L. Moreno, and P. Rosso, "Cross-language source code re-use detection using latent semantic analysis," p. Accepted: in press, 2015.

E. Flores, A. Barrón-Cedeño, L. Moreno, and P. Rosso, "Uncovering source code reuse in large-scale academic environments," Computer Applications in Engineering Education, vol. 23, no. 3, pp. 383–390, 2015.

E. Flores, P. Rosso, L. Moreno, and E. Villatoro-Tello, "PAN@FIRE: Overview of SOCO track on the detection of SOurce COde re-use," in Sixth Forum for Information Retrieval Evaluation (FIRE 2014), Bangalore, India, 2014.

E. Flores, A. Barrón-Cedeño, L. Moreno, and P. Rosso, "Cross-language source code re-use detection," in Proc. 3rd Spanish Conf. on Information Retrieval, CERI-2014, pp. 145-156, 2014.

E. Flores, M. Ibarra-Romero, L. Moreno, G. Sidorov, and P. Rosso, "Modelos de recuperación de información basados en n-gramas aplicados a la reutilización

- de código fuente," in *Proc. 3rd Spanish Conf. on Information Retrieval, CERI-2014*, pp. 185–188, 2014.
- E. Flores, A. Barrón-Cedeño, P. Rosso, and L. Moreno, "DeSoCoRe: Detecting Source Code Re-use across programming languages," in *Proceedings of the Demonstration Session at the Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*, (Montréal, Canada), pp. 1–4, Association for Computational Linguistics, June 2012.
- E. Flores, A. Barrón-Cedeño, P. Rosso, and L. Moreno, "Towards the detection of cross-language source code reuse," in *Natural Language Processing and Information Systems*, vol. 6716 of *Lecture Notes in Computer Science*, pp. 250–253, Springer, 2011.
- E. Flores, A. Barrón-Cedeno, P. Rosso, and L. Moreno, "Detección de reuso de código fuente entre lenguajes de programación con base en la frecuencia de términos," *IV Jornadas TIMM Tratamiento de la Información Multilingüe y Multimodal 7 y 8 de abril*, p. 21, 2011.
- E. Flores, A. Barrón-Cedeño, P. Rosso, and L. Moreno, "Detecting Source Code Reuse across Programming Languages," *27th Conference of the Spanish Society for Natural Language Processing (SEPLN'11)*, 2011.
- M. Franco-Salvador, I. Bensalem, E. Flores, P. Gupta, and P. Rosso, "PAN 2015 Shared Task on Plagiarism Detection: Evaluation of Corpora for Text Alignment," in *Working Notes Papers of the CLEF 2015 Evaluation Labs*, vol. 1391 of *CEUR Workshop Proceedings*, CLEF and CEUR-WS.org, 2015.