



M. Mercè Martín i Prats

Birth date: 10/07/1968
Phone: 667 870 865

Location: Girona (Catalonia - Spain)
email: mmartin@atinet.es

Academic Record

2012 - **Software as a Service, Algorithms I, Natural Language Processing**. Online courses by www.coursera.org.
2011 - **Artificial Intelligence, Machine Learning**. Online courses by www.coursera.org.
2009 - Chosen Mathematical Sciences' degree courses (algebraic topology, etc.).
2007 - Computer Science Engineer degree at UNED.
1996 - Theoretical Physics **Ph.D.** at *Universitat de Barcelona* (General Relativity).

Courses, seminars and congresses attendance

| | |
|---|--|
| PyCon 2014 - Montreal | Advanced Java (UOC). |
| AJAX (BIT). | Information highways seminar: bussiness oportunity for corporations (ESADE). |
| PHP (BIT). | ILE/RPG, DB2 - AS/400 (IBM). |
| JavaScript (BIT). | Visual C++ (Bit Diagonal). |
| TCP/IP Networks Security (JJEC formació, SL). | |

Professional expertise

| | |
|-------------------------|---|
| from dec. 2012 till now | VP of Applications at BigML . |
| jul. 2012 | Collaboration with BigML . |
| apr. 2011 - dec. 2011 | Software engineer at N'èventum . |
| dec. 2010 - 2005 | System analyst at <i>Enciclopèdia Catalana</i> , SA. |
| 2000-2005 | System analyst at <i>Interacció Editorial</i> (<i>Enciclopèdia Catalana</i>). |
| 2002-2004 | Software engineer at Habitatge Jove. |
| 1998-2000 | Analyst/programmer at <i>Interacció Editorial</i> (<i>Enciclopèdia Catalana</i>). |
| 1996-1998 | Administrative and computer support tasks at <i>ProEixample</i> , SA. |
| 1996 | Programmer at <i>Interacció Editorial</i> . |
| 1993-1994 | Associated professor at <i>Universitat de Barcelona</i> . |
| 1988-1991 | Administrative assistant at Barcelona's City Hall. |

Known/used languages and frameworks

Python (DRF, Django), PHP (Lemur), Node.js, JSP, JavaScript (AJAX, dojo, TinyMCE, JQuery), Java (JSP), Perl, Ruby (Rails), RPG, HTML, XML, WML, RSS, CSS
Haskell, Lisp, Prolog, Flatline, WhizzML.

Operating systems

GNU/Linux (Ubuntu / Debian), Windows, OS/400.

Database managers

PostgreSQL, MySQL, MongoDB, DB2, SQLServer.

Http servers

Nginx, Apache, WebSphere, IIS, Netscape, Sharepoint Portal Server

Lecturing and Support experience

| | |
|--------------------------|--|
| ML Schools | Lecturer in most of the Machine Learning Schools held by BigML around the world (https://bigml.com/education/#schools). |
| ML Courses | Lecturer in customized Machine Learning courses. The last of which in Denmark (RDDC). |
| ML Certifications | Materials preparation and lecturing for the BigML ML Certifications. |
| Seminars | Seminars lecturer at UB , UAB and UPV . |
| Support | BigML customers' support attention team. |
| PyConEs 2015 | Lecturer. Presenting the BigML bindings for Python. |

Other analysis and system management activities

Email administration.

Firewall administration.

Design of TCP/IP networks.

Design, coordination and cooperation in network migration tasks (routes and connections rebuilding, routers configuration) in the last EC base moving.

Log analysis.

Ftp space administration and timely assistance in external web projects (DSN entries, mailing, etc).

Languages

Catalan: mother tongue. Certificat nivell D (Junta Permanent de Català).

Spanish: mother tongue.

English: high level. (British Institute). Certificate of Proficiency in English - Cambridge University.

French: medium-high level. (primary and advanced regular education).

German: basic level (2nd. course in Goethe Institut - Barcelona).

Products and projects

| | |
|--|---|
| Accessibilitech Mapping Tool | Project developed for ONCE (DRF and PostgreSQL backend). Maps all the EU-funded projects that can be used for e-learning, telecare or telework. Projects are filtered and tagged using Machine Learning. It's constantly updated and contains an Intranet where the Accessibilitech team confirms or rejects the predictions of the projects, which is used as feedback loop for the next training phase for the ML models (https://mappingtool.projects-espaciainserta.com/tool). |
| Hotel Accessibility | Project developed for ONCE . Cooperation in a EU-funded project to build a Machine Learning model which is able to detect accessibility in hotels along the "Camino de Santiago". Based on object detection on hundreds of pictures of hotel and other accomodations entrances plus a simplified survey form. Models were used locally thanks to the Python bindings libraries. |
| BigML Internal Statistics | Internal usage statistics Dashboard using Grafana . |
| BigML Python bindings | Python bindings for BigML API. Allows Python interaction with BigML's sources, databases, models, ensembles, evaluations, predictions, clusters, centroids, batch predictions and batch centroids. Local predictions both for models and ensembles. |
| BigML Node.js bindings | Node.js bindings for BigML API. Allows Python interaction with BigML's sources, databases, models, ensembles, evaluations, predictions, clusters, centroids, batch predictions and batch centroids. Local predictions both for models and ensembles. |
| Actionable models and ensembles | Models and ensembles actionable code in many languages ready to allow predictions to be integrated in user's projects in their own coding language. Support for Hadoop predictions in Python , Ruby and Java . Summaries of models' and ensembles' distributions and field importances. |
| BigMLer | Command line tool designed to create or manage any BigML resource. Provides support for classification and regression problems, multi-label classification, and evaluation-guided optimization of models. |
| BigML Ruby bindings | Ruby bindings for BigML API. Both static and object like methods for interacting in Ruby with the BigML source, database, model and prediction objects (discontinued project). |
| BigML-GAS for Google Sheets | Google Sheets add-on (apps script) that allows you to use BigML models from the spreadsheet to make predictions or upload and download data to and from the BigML Platform. |
| Neventum.com | Neventum 3.0 platform's development, created from the evolution of many portals grown under neventum.com . It has been built on Lemur framework (a new MVC basic implementation including some Drupal features). Data is stored in MySQL and MongoDB . Client side automation uses JQuery . |
| Editor 2.0 for Enciclopedia.cat | Editor 2.0 for the articles in enciclopedia.cat. It is the tool for collaborators, once they are autenticated and categorized by a supervisor, to contribute to the articles of enciclopedia.cat. Encloses management systems for users, versions and workflow automation. The resulting documents are automatically published and indexed (if accepted) in enciclopedia.cat. In combines very different platforms, it uses PHP , |

| | |
|---|--|
| | JSP, AJAX, Java, MySQL and DB2. The editor has been based on TinyMC and adds some new features, as math formula edition in LaTeX. |
| Enciclopedia.cat | The new IT path to the contents of the <i>Gran Enciclopèdia Catalana</i> . Allows to visualize the <i>Enciclopèdia</i> 's contents, its document group structure, through both his own search engine and the editor's knowledge category tree. This has been a multiplatform project, which used AJAX, Java and JSP to achieve the necessary communication among different machines. |
| Gran Diccionari de la Llengua Catalana | The <i>Gran Diccionari de la Llengua Catalana</i> online. Hypertext functionality triggering flexed lexemes search on the same dictionary. Again, a multiplatform project where communication was achieved by AJAX and JSP techniques. |
| Item fund management | HTML Editor (HTML, JavaScript, AJAX, DB2), management tool on intranet/extranet format based on IE. Designed to allow maintenance of the information regarding commercialization and distribution of catalan books by Àgora (the newly created distribution company of Grup EC and Grup 62). |
| Entry visualizer | Manager and visualizer for the articles enclosed in the <i>Gran Enciclopèdia Catalana</i> . Its maintenance interface is an HTML Editor (HTML, JavaScript, DB2), with facilities like working with groups of articles created by search criteria or users' choice. |
| Habitatge Jove | Web and tailored backoffice utilities for flats and rooms rental administration. Web site includes a section where anyone can publish a room for rent offer for a limited amount of time, even if they are not managed by Habitatge Jove. Programs for the web are ASP and backoffice is VBA . |
| Agorallibres.cat | Commercial web site of the newly created company Àgora, which distributes catalan books to bookstores. Endowed with user profile management and customer account information access. Is an HTML export of the aforementioned item fund database. Other examples of this are lagalera.cat and diccionaris de l'enciclopèdia . |
| Digec.cat | Commercial web site of EC addressed to bookstores. With user profile management and customer account information. Again an HTML export of the item fund database. |
| Diccionari Multilingüe | The <i>Diccionari Multilingüe (català - castellà - anglès - francès - alemany)</i> online. |
| DIDAC Diccionari de Català | Catalan dictionary for children and young people, with illustrations mapped to the dictionary's entries. |
| Multicerca | Multiple search engine on <i>Gran Diccionari de la Llengua Catalana</i> , the <i>Hiperenciclopèdia</i> , the <i>Actualitat</i> database, the <i>Cercador.com</i> , the <i>Gran Geografia Comarcal</i> , <i>ciutat.net</i> and <i>llibres.cat</i> . |
| Ciutat.net | Commercial business directory for the main cities in Catalonia. Graphical street map, map location, search capabilities: location, commercial name, activity. |
| Llibres.cat | Books, cds and dvds virtual bookshop. |
| sapiensdigital.com | Main website for <i>Sàpiens</i> magazine online. |
| Internet a l'aula | Educational resources for the XTEC. |
| Intragrec | Intranet for EC. |
| Projectes editorials | Intranet management application for EADOP's publishing projects (Generalitat de Catalunya). |
| Educational CD-Roms | Compacta (3rd. edition -- participating in all editions), Diccionari de l'IEC, Economia per a no economistes (UB Media), El món interactiu. |

Publications

| | |
|--|---|
| Machine Learning related blog posts | Posts related to the BigML releases and features. The last of them includes a small application developed using Streamlit (https://idealista18-anomalies.streamlit.app/). |
| De la paradoxa a la realitat | Translation into catalan from the book From Paradox to Reality by Fritz Rorhlich about the two greatest revolutions in modern physics. |
| PhD thesis | <i>Axially symmetric models for stellar and cosmological structures.</i> |