Mikel Egaña Aranguren, Ph.D.

Associate Professor

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48013 Bilbao, Spain

Education

2009 Ph.D. Computer Science, University of Manchester, UK

2005 M.Sc. Bioinformatics, University of Manchester, UK

2003 B.Sc. Biology, University of Basque Country, Spain

2002 **Invited student** Evolutionary Ecology at Canterbury Christ Church University College, UK

2002 **Erasmus student** Environmental Biology at Canterbury Christ Church University College, UK

Employment

| 2024/07/01 - Present | Associate Professor, Dept. of Computer Languages and Systems, |
|-------------------------|---|
| | UPV/EHU |
| 2020/09/01 - 2024/06/30 | Assistant Professor, Dept. of Computer Languages and Systems, |
| | UPV/EHU |
| 2018/12/02 - 2020/08/31 | Linked Data Consultant Eccenca GmbH |
| | Development of Linked Data solutions for the Enterprise, |
| | including project management |
| 2018/10/01 - 2018/12/02 | Bioinformatics technician Biocruces Bizkaia |
| | Data infrastructure development, Bioinformatics analyses |
| 2016/01/14 - 2018/09/30 | Analyst, Torres Quevedo fellow Eurohelp Consulting |
| | Design and development of Linked Open Data solutions |
| 2015/04/27 - 2016/01/14 | Analyst Eurohelp Consulting |
| | Design and development of Linked Open Data solutions |

Research positions

2014/04/01 - 2015/03/31 Post-doc researcher (80% FTE) Genomic Resources Group, UPV/EHU
Metagenomics and Life Sciences Semantic Web

2011/02/14 - 2014/02/14 Post-doc researcher, Marie Curie Cofund fellow
Ontology Engineering Group (Computer Science);
Biological Informatics Group (CBGP), UPM, Spain
Ontology Engineering and Life Sciences Semantic Web

2010/12/01 - 2011/02/01 Researcher OGO project, UM, Spain
Orthologous Genes Ontology

2006/05/01 - 2006/10/1 Pre-doc researcher, Marie Curie EST fellow
Computational Biology group, VIB, Belgium
Cell Cycle Ontology and Ontology Design Patterns

Freelance positions

2018/10/15 - 2018/12/02 Ontology Engineering. Cognizone, Belgium
2018/05/01 - 2018/07/31 Public tender technical writer. University of Murcia
Project Hercules: Federated Linked Open Data for universities

Research visits

2005/09/01 - 2005/10/01 European Bioinformatics Institute (EBI), funded by the Network of Excellence on Semantic Interoperability and Data Mining in Biomedicine (EU)

Personal funding

2018-2020 (2 years)

2016-2018 (3 years)

2011-2014 (3 years)

2006 (5 months)

2005 - 2008 (3 years)

Declined Bioinformatics Technician. Instituto de Salud Carlos III. CA18/00021

Torres Quevedo (Spain). 35% of salary at Eurohelp Consulting. PTQ-14-07198

Marie Curie Cofund (EU). UNITE 246565

Marie Curie EST (EU). MEST-CT-2004-414632

EPSRC (UK): Ph.D. fees

University of Manchester (UK): Ph.D. maintenance allowance

Erasmus (EU)

Participation in projects

Research

| 2024 - 2027 | BRAINMAP-REHAB (Biocruces) |
|-------------|--|
| 2024 | EHUkhi: una plataforma para el desarrollo del potencial fotovoltaico de la UPV/EHU |
| | (Campus Bizia Lab). 2.225,00 EUR. |
| 2021 - 2025 | SUPPORT4LHS (Process Mining and Knowledge Representation technologies to |
| | Support the Learning Health System). PID2020-113723RB-C22. |
| | Agencia Estatal de Investigación, "Proyectos I+D+i 2020" - |
| | Modalidades "Retos Investigación" y "Generación de Conocimiento" |
| | (Plan Estatal de Investigación Científica y Técnica y de Innovación 2017-2020). |
| | 136.972,00 EUR. 01/09/2021 - 31/08/2024 |
| 2010 - 2015 | Grupo de Investigación del Sistema Universitario Vasco. "Análisis genómicos |
| | de la variación del ADN" (GIC10/58-IT558-10). Basque government |
| 2012 - 2014 | Genes And Proteins for AutoImmunity Diagnostics GAPAID. |
| | FP7-SME - Specific Programme "Capacities": Research for the benefit of SMEs |
| | (7PM-CAPACITIES-SMEs12/01) |
| 2007 - 2010 | Plataforma web para gestión de conocimientos guiada por ontologías en |
| | genómica funcional. Proyecto Industrial- Regional Murcia (BIO-TEC 06/01-0005) |
| | |

Transfer

| 2024 | Knowledge Graphs. Universidad de Murcia (UM), |
|-------------|---|
| | SIEMENS (8.000,00 EUR). Knowledge transfer project (PT10885) managed by |
| | Euskoiker foundation. |
| 2023 - 2024 | Methods for automatic generation of Knowledge Graph. Universidad de Murcia (UM), |
| | BASF (8.000,00 EUR). Knowledge transfer project (TR42135) managed by |
| | Euskoiker foundation. |
| 2021 - 2022 | Producción de Datos Enlazados para Open Data Euskadi. EJIE (Sociedad Informática |
| | del Gobierno Vasco), 2105015. (9.000,00 EUR) Knowledge transfer project (TR41652) |
| | managed by Euskoiker foundation. |

Development

| 2017 - 2018 | SOLDAGE (Semantic Open Linked DAta GEnerator). HAZITEK, Gobierno Vasco. |
|-------------|--|
| | FAIR data generator (150.000 EUR). |
| 2016 - 2020 | REPLICATE. Renaissance of Places with Innovative Citizenship And |
| | TEchnology (Project 691735), EU. Linked Open Data in Smart Cities |
| | (http://replicate-project.eu/). |
| | (Consortium: 24.965.263,09; Eurohelp: 328.580,00 EUR). |
| 2015 - 2017 | Linking Open Domains, Plataforma para la generación de datos enlazados |
| | (LODGen) (TSI-100105-2015-0012). Ministerio de Industria, Energia y Turismo (Spain), |
| | Acción Estratégica Economía y Sociedad Digital (AEESD) 1/2015. |
| | Linked Open Data pipeline (40.182,54 EUR). |
| 2015 - 2016 | Enlazando Gipuzkoa con el Mundo (ENGIMU). Gipuzkoako Foru Aldundia, |
| | |

Public tender

| 2018 | Servicios Directorio. |
|-------------|---|
| | EJIE (Sociedad Informática del Gobierno Vasco). (70.000 EUR). |
| 2016 - 2017 | Servicios Open Linked Data. EJIE (Sociedad Informática del Gobierno Vasco). |
| | Linked Data implementation of Open Data Euskadi (90.000 EUR). |

Gipuzkoa IKT: Innovación digital Empresas (Spain).

Linked Open Data pipeline (40.000 EUR).

Publications

Peer review journals

| 2024 | Ontogenix Information Processing and Management Elsevier |
|------|--|
| 2015 | Aranguren, M. E. and Wilkinson, M. D. (2015). Enhanced reproducibility of SADI Web service workflows with Galaxy and Docker. <i>GigaScience</i> , 4(59) |
| 2015 | Pawluczyk, M., Weiss, J., Links, M. G., Aranguren, M. E., Wilkinson, M. D., and Egea-Cortines, M. (2015). Quantitative evaluation of bias in PCR amplification and Next Generation Sequencing derived from metabarcoding samples. <i>Analytical and Bioanalytical Chemistry</i> , 407(7):1841–1848 |
| 2014 | González, A. R., Callahan, A., Toledo, J. C., García, A., Aranguren, M. E., Dumontier, M., and Wilkinson, M. D. (2014a). Automatically exposing OpenLifeData via SADI semantic Web Services. <i>Journal of Biomedical Semantics</i> , 5(1):46+ |
| 2014 | Aranguren, M. E., González, A. R., and Wilkinson, M. D. (2014). Executing SADI services in Galaxy. <i>Journal of Biomedical Semantics</i> , 5(1):42+ |

- José Antonio Miñarro Giménez, Mikel Egaña Aranguren, Boris Villazón Terrazas, and Jesualdo Tomás Fernández Breis (2014). Translational research combining orthologous genes and human diseases with the OGOLOD dataset. Semantic Web Journal, 5(2):145–149
- 2014 Mikel Egaña Aranguren, Jesualdo Tomás Fernández Breis, and Michel Dumontier (2014). Special issue on Linked Data for Health Care and the Life Sciences. Semantic Web Journal, 5(2):99–100
- Duque-Ramos, A., Fernández-Breis, J. T., Iniesta, M., Dumontier, M., Egaña Aranguren, M., Schulz, S., Aussenac-Gilles, N., and Stevens, R. (2013). Evaluation of the OQuaRE framework for ontology quality. *Expert Systems with Applications*, 40(7):2696–2703
- Egaña Aranguren, M., Fernández-Breis, J. T., Antezana, E., Mungall, C., Rodríguez González, A., and Wilkinson, M. D. (2013). OPPL-Galaxy, a Galaxy tool for enhancing ontology exploitation as part of bioinformatics workflows. *Journal of biomedical semantics*, 4(1):2
- 2012 Miñarro-Gimenez, J., Egaña-Aranguren, M., Villazon-Terrazas, B., and Fernandez-Breis, J. (2012). Publishing Orthology and Diseases Information in the Linked Open Data Cloud. *Current Bioinformatics*, 7(3):255–266
- 2011 Mironov, V., Antezana, E., Egaña, M., Blondé, W., De Baets, B., Kuiper, M., and Stevens, R. (2011). Flexibility and utility of the Cell Cycle Ontology. *Applied Ontology*, 6(3):247–261
- Miñarro-Gimenez, J., Aranguren, M., Béjar, R., Fernández-Breis, J., and Madrid, M. (2011). Semantic integration of information about orthologs and diseases: The OGO system. *Journal of biomedical informatics*, 44:1020–1031
- Antezana, E., Egaña, M., Blondé, W., Illarramendi, A., Bilbao, I., De Baets, B., Stevens, R., Mironov, V., and Kuiper, M. (2009b). The Cell Cycle Ontology: an application ontology for the representation and integrated analysis of the cell cycle process. *Genome Biol*, 10(5):R58
- 2009 Antezana, E., Blondé, W., Egaña, M., Rutherford, A., Stevens, R., De Baets, B., Mironov, V., and Kuiper, M. (2009a). BioGateway: a semantic systems biology tool for the life sciences. *BMC bioinformatics*, 10(Suppl 10):S11
- Egaña Aranguren, M., Wroe, C., Goble, C., and Stevens, R. (2008). In situ migration of handcrafted ontologies to reason-able forms. *Data & Knowledge Engineering*, 66(1):147–162
- Aranguren, M., Antezana, E., Kuiper, M., and Stevens, R. (2008a). Ontology Design Patterns for bio-ontologies: a case study on the Cell Cycle Ontology. *BMC bioinformatics*, 9(Suppl 5):S1

| 2008 | Antezana, E., Egaña, M., De Baets, B., Kuiper, M., and Mironov, V. (2008b). |
|------|--|
| | ONTO-PERL: an API for supporting the development and analysis of bio-ontologies. |
| | Bioinformatics, 24(6):885 |

- 2007 Stevens, R., Egaña Aranguren, M., Wolstencroft, K., Sattler, U., Drummond, N., Horridge, M., and Rector, A. (2007). Using OWL to model biological knowledge. *International Journal of Human-Computer Studies*, 65(7):583–594
- Aranguren, M., Bechhofer, S., Lord, P., Sattler, U., and Stevens, R. (2007). Understanding and using the meaning of statements in a bio-ontology: recasting the Gene Ontology in OWL. *BMC bioinformatics*, 8(1):57

Book Chapters

Aranguren, M., Stevens, R., Antezana, E., Fernández-Breis, J.T., Kuiper, M., and Mironov, V. (2010). Technologies and Best Practices for Building Bio-Ontologies. In *Knowledge-Based Bioinformatics*, volume Gil Alterovitz and Marco Ramoni (Eds.), pages 67–86. Wiley Online Library

Books

Aranguren, M. (2010). Role and application of ODPs in bio-ontologies. Lambert Academic Publishing

Conference Proceedings

- González, A. R., Romero, M. M., Aranguren, M. E., and Wilkinson, M. D. (2014b). Nanopublishing clinical diagnoses: tracking diagnostic knowledge base content and utilization. In 27th International Symposium on Computer-Based Medical Systems (CBMS), pages 335–340
- Iglesias, A. R., Aranguren, M. E., González, A. R., and Wilkinson, M. D. (2013). Plant Pathogen Interactions Ontology (PPIO). In Rojas, I. and Guzman, F. M. O., editors, *IWBBIO*, pages 695–702. Copicentro Editorial
- Aranguren, M., Fernández-Breis, J., and Antezana, E. (2011). OPPL-Galaxy: enhancing ontology exploitation in galaxy with OPPL. In *Proceedings of the 4th International Workshop on Semantic Web Applications and Tools for the Life Sciences*, pages 12–19. ACM

- 2010 Miñarro-Giménez, J., Aranguren, M., García-Sánchez, F., and Fernández-Breis, J. (2010). A semantic query interface for the OGO platform. In *Information Technology in Bio-and Medical Informatics, ITBAM 2010*, pages 128–142. Springer
- Egaña, M., Rector, A., Stevens, R., and Antezana, E. (2008). Applying ontology design patterns in bio-ontologies. In Gangemi, A. and Euzenat, J., editors, *Knowledge Engineering: Practice and Patterns*, volume 5268 of *Lecture Notes in Computer Science*, pages 7–16. Springer Berlin Heidelberg

Preprints, Workshop Proceedings and other publications

- Aranguren, M. E. (2024). The Transparent Relations Ontology (TRO): a vocabulary to describe conflicts of interest. *Arxiv*, *Cornell University*
- Aranguren, M. E., Breis, J. T. F., Castro, A. G., and Rompe, M. (2024). The Cybersecurity Ontology Network: the first building block for a comprehensive Cybersecurity Knowledge Graph. In OK4I Ontologies and Knowledge Graphs for Industry (Co-located with FOIS), Enschede, Netherlands
- Aranguren, M. E. (2015). Merging OpenLifeData with SADI services using Galaxy and Docker (DOI 10.1101/013615). *BioRxiv*, Cold Spring Harbor Labs
- Horridge, M., Aranguren, M., Mortensen, J., Musen, M., and Noy, N. (2012). Ontology Design Pattern Language Expressivity Requirements. In WOP (Co-located with ISWC), Boston, USA
- Gimenez, J., Aranguren, M., and Tomas, J. (2012). NCBO-Galaxy: bridging the BioPortal web services and the Galaxy platform. In *ICBO*, *Graz*, *Austria*
- Fernandez-Breis, J., Aranguren, M., and Stevens, R. (2009). A quality evaluation framework for bio-ontologies. In *ICBO*, *Buffalo*, *USA*
- Aranguren, M., Stevens, R., and Antezana, E. (2008b). Transforming the Axiomisation of Ontologies: The Ontology Pre-Processor Language. In *OWL Experiences* and *Directions (OWLEd)*. Washington DC. USA
- 2008 Iannone, L., Egana, M., Rector, A., and Stevens, R. (2008). Augmenting the expressivity of the ontology pre-processor language. In *OWL Experiences and Directions* (*OWLEd*), co-located with *ISWC*, Karlsruhe, Germany
- Antezana, E., Blondé, W., Egana, M., Rutherford, A., Stevens, R., De Baets, B., Mironov, V., and Kuiper, M. (2008a). Structuring the life science resourceome for semantic systems biology: lessons from the BioGateway Project. In *Proceedings of the Workshop on Semantic Web Applications and Tools for Life Sciences (SWAT4LS): November 28, 2008; Edinburgh, United Kingdom*

| 2012 | Marshall, M., Boyce, R., Deus, H., Zhao, J., Willighagen, E., Samwald, M., Pichler, E., Hajagos, J., Aranguren, M., Miller, M., Prud'hommeaux, E., Dumontier, M., and Stephens, S. (2012). Health Care and Life Science (HCLS) Linked Data Guide (http://www.w3.org/2001/sw/hcls/notes/hcls-rdf-guide/) |
|------|---|
| 2007 | Aranguren, M. (2007). ¿Qué puede hacer la web semántica por la biología? In $BioGaia\ 7$ |
| 2003 | Aranguren, M. (2003). Software libre (GNU/linux) para biólogos. In <i>BioGaia 3</i> |

Committees and reviewer work

| 2024 | Reviewer for Journal of Biomedical Semantics (JBS) |
|------|---|
| 2024 | Reviewer for Bioinformatics (https://publons.com/wos-op/review/author/73gSS0Ol/) |
| 2023 | Program Committee Member at Semantic Web Solutions for Large-Scale Biomedical Data Analytics (SeWeBMeDA 2023) |
| 2022 | Program Committee Member at Semantic Web Solutions for Large-Scale Biomedical Data Analytics (SeWeBMeDA 2022) |
| 2020 | Program Committee Member at Semantic Web Solutions for Large-Scale Biomedical Data Analytics (SeWeBMeDA 2020) |
| 2019 | Program Committee Member at Semantic Web Solutions for Large-Scale Biomedical Data Analytics (SeWeBMeDA 2019) |
| 2018 | Program Committee Member at Semantic Web Solutions for Large-Scale Biomedical Data Analytics (SeWeBMeDA 2018) |
| 2017 | Program Committee Member at Semantic Web Solutions for Large-Scale Biomedical Data Analytics (SeWeBMeDA 2017) |
| 2017 | Chapter review "Integrating Biological Data using Semantic Web Technology" in "Evolutionary Genomics. Computational and statistical methods", 3rd edition, Springer |
| 2015 | Program Committee Member at Linked Data workshop (CAEPIA 2015) |
| 2015 | Reviewer for BMC Medical Informatics and Decision Making |
| 2013 | Special issue editor for Semantic Web Journal (SWJ): Special issue on Linked Data for Health Care and the Life Sciences |

| 2013 | Reviewer for PeerJ |
|------|---|
| 2013 | Reviewer for Data and Knowledge Engineering (DKE) |
| 2012 | Program Committee Member at Managing Interoperability and compleXity in Health Systems. In conjunction with the ACM International Conference on Information and Knowledge Management |
| 2012 | Program Committee Member at Joint Workshop on Semantic Technologies Applied to Biomedical Informatics and Individualized Medicine (SATBI + SWIM 2012). In conjunction with International Semantic Web Conference (ISWC) |
| 2012 | Reviewer for BMC Bioinformatics |
| 2012 | Reviewer for Journal of Biomedical Informatics (JBI) |
| 2012 | Reviewer for Computational and Mathematical Methods in Medicine (CMMM) |
| 2012 | Reviewer for Journal of Medical Systems (JOMS) |
| 2012 | Reviewer for Journal of Biomedical Semantics (JBS) |
| 2011 | Program Committee Member at Managing Interoperability and compleXity in Health Systems. In conjunction with the ACM International Conference on Information and Knowledge Management |
| 2011 | Program Committee Member at Knowledge Capture (K-CAP) |
| 2011 | Program Committee Member at Semantic Applied Technologies on Biomedical Informatics (SATBI 2011). In conjunction with the ACM International Conference on Bioinformatics and Computational Biology |
| 2011 | Reviewer for Semantic Web Journal (SWJ) |
| 2011 | Reviewer for Journal of Research and Practice in Information Technology (JRPIT) |
| 2008 | Program Committee Member at ONTORACT |

Invited Talks

| 2016 | Los Datos Enlazados y la Web Semántica. Tikitalka, VE Interactive, Spain |
|------|--|
| 2014 | Building reasonable biomedical ontologies for a Life Sciences Semantic Web. 3S (Systems, Synthetic, and Semantic) Biology summer school. CIBIO (Centre for Integrative Biology), University of Trento, Italy |
| 2011 | Linked Data for Functional Genomics. NTNU, Trondheim, Norway |

| 2010 | Aplicación de la Web Semántica en Biología Molecular. Universidad de Deusto, Facultad de Ingeniería, Spain |
|------|--|
| 2008 | Aplicación de la Web Semántica en Bioinformática. UM, Facultad de Informática, Spain |
| 2004 | Métodos y resultados actuales en Bioinformática: know-how y know-what de las redes tecnocientíficas en Bioinformática. EHU, Facultad de Filosofía, Spain |

Teaching Experience

| 2023 | Administration of Data Bases (6 ECTS). Degree in Computer Engineering of Management and Information Systems, UPV/EHU. Spanish and Basque |
|------|---|
| 2023 | FAIR data (0.5 ECTS). MSc Bioinformatics, UM. Spanish |
| 2023 | Information Security (6 ECTS). Degree in Computer Engineering of Management and Information Systems, UPV/EHU. Spanish and Basque |
| 2022 | FAIR data (0.5 ECTS). MSc Bioinformatics, UM. Spanish |
| 2022 | Information Security (6 ECTS). Degree in Computer Engineering of Management and Information Systems, UPV/EHU. Spanish and Basque |
| 2022 | Analysis and Design of Information Systems (6 ECTS). Degree in Computer Engineering of Management and Information Systems, UPV/EHU. Spanish |
| 2021 | FAIR data (0.5 ECTS). MSc Bioinformatics, UM. Spanish |
| 2021 | Information Security (6 ECTS). Degree in Computer Engineering of Management and Information Systems, UPV/EHU. Spanish and Basque |
| 2021 | Analysis and Design of Information Systems (6 ECTS). Degree in Computer Engineering of Management and Information Systems, UPV/EHU. Spanish |
| 2021 | Project Management (3 ECTS). Degree in Computer Engineering of Management and Information Systems, UPV/EHU. Spanish and Basque |
| 2020 | FAIR data (0.5 ECTS). MSc Bioinformatics, UM. Spanish |
| 2020 | Information Security (6 ECTS). Degree in Computer Engineering of Management and Information Systems, UPV/EHU. Spanish |
| 2020 | Analysis and Design of Information Systems (6 ECTS). Degree in Computer Engineering of Management and Information Systems, UPV/EHU. Spanish |

| 2017 | Life Sciences Semantic Web (1 ECTS). MSc Bioinformatics, UM. Spanish |
|---------------|---|
| 2016 | Life Sciences Semantic Web (1 ECTS). MSc Bioinformatics, UM. Spanish |
| 2016 | Linked Open Data tutorial. EJIE. Spanish |
| 2015 | Linked Open Data tutorial. IZFE (Informatika Zerbitzuen Foru Elkartea, Gipuzkoa). Spanish |
| 2015 | Life Sciences Semantic Web (1 ECTS). MSc Bioinformatics, UM. Spanish |
| 2014 | Semantic biology tutorial: Use of Semantic Web resources for knowledge discovery. 3S (Systems, Synthetic, and Semantic) Biology summer school. CIBIO (Centre for Integrative Biology), University of Trento, Italy. English |
| 2014 | Galaxy tutorial. Erasmus mundus MSc in Marine Environment and resources, UPV-EHU. English |
| 2014 | Life Sciences Semantic Web (1 ECTS). MSc Bioinformatics, UM. Spanish |
| 2013 | Introductory talk on bioinformatics for high school students visiting the CBGP. Spanish |
| 2013 | Galaxy tutorials at CBGP. English and spanish |
| 2013 | Life Sciences Linked Data (1 ECTS). MSc Bioinformatics, UM. Spanish |
| 2012 | OWL, as part of ATHENS course (UPM). English |
| 2012 | OWL, as part of ATHENS course (UPM). English |
| 2011 | Populous tutorial at SWAT4LS (London, UK), English |
| 2011 | OWL, as part of ATHENS course (UPM). English |
| 2011 | Web Ontology Language (OWL), as part of Artificial Intelligence MSc (UPM). English |
| 2011 | OWL/Description Logics, as part of the Artificial Intelligence course (UPM). Spanish |
| 2005- 2008 | OWL tutorials for biologists (University of Manchester, UK). English |

Ph.D. panels

| 2016 | Alejandro Rodríguez Iglesias, "FAIR approaches applied to unraveling plant-pathogen interactions data and RNA processing evolution", UPM, Spain |
|------|--|
| 2013 | Meifania Monica Chen, "Lipoprotein Ontology: A Formal Representation of Lipoproteins", Curtin University. Australia |
| 2012 | Jose Antonio Miñarro-Giménez, "Entorno para la gestión semántica de información biomédica en investigación traslacional". UM, Spain |
| 2011 | Doris Mejía Ávila, "Estrategia de interoperabilidad semántica en el contexto de integración de conocimiento geográfico y ambiental. Caso de aplicación: Biodiversity Ontology". UPM, Spain |

Student supervision

| 2024 | Unai Castro. "App para la gestión de deportes entre amigos incluyendo estadísticas". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
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| 2024 | Alberto Aróstegui. "Sistema ChatGPT-RAG para una mejor interacción con Jira". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
| 2024 | Alvaro Diez-Andino. "Cifrado asimétrico: Desde la perspectiva clásica a la cuántica a través de RSA". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
| 2024 | Mikel Perez. "Order superfast: App para la agilización de pedidos en restaurantes". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
| 2024 | Gorka del Río. "Aplicación móvil de intercambio de parejas con conocimiento cero". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
| 2024 | Igor Isasi. "Aplicación Web de exploración de datos en mapas basada en APIs REST de Open Data Euskadi". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
| 2024 | Paul Charrier. "Party Beast" Final Degree Project (TFG/GrAL), Erasmus+ (Ecole d'Ingenieurs ESME Sudria), UPV/EHU, Spain |
| 2023 | Joel García. "Aplicación de ChatGPT para la mejora de procesos de desarrollo en un entorno empresarial". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |

| 2023 | Ena Verhorst. "Migración de una aplicación de gestión a una nube comercial usando integración continua". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
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| 2023 | Aitor San Jose. "Desarrollo de una aplicación de soporte a revisiones médicas usando Odoo". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
| 2023 | Jon Garcia. "'Técnicas para la gestión de secretos en entornos cloud'. Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
| 2023 | Joseba Rodriguez. "Aplicación web basada en Nmap para monitorizar seguridad de servicios en una red corporativa". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
| 2022 | Maialen Ruiz. "Hezkuntzako ordezkapenak aukeratzeko mapa bidezko aplikazioa". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
| 2022 | Jon Ander Asua. "Grafo batean balizko ustelkeriaren datuak irudikatzeko framework generikoa". Final Degree Project (TFG/GrAL), Bachelor's Degree in Computer Engineering in Management and Information Systems, UPV/EHU, Spain |
| 2015 | Salvador Alonso Martínez. "Imagen Docker para pipelines de Metagenómica", Bioinformatics MSc project (TFM), UM, Spain |

Certifications and courses

| 2023 | Tus estudiantes usan ChatGPT y lo sabes. 2 hours course by Grupo 9 de Universidades (G-9) |
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| 2023 | Neo4J Certified Professional. Issued by Neo4J |
| 2023 | Semantic Integration Training. Issued by Semantic Web Company |
| 2023 | Knowledge Engineering Training. Issued by Semantic Web Company |
| 2019 | Docker Essentials: A Developer Introduction. Issued by Cognitive Class |
| 2017 | Predictive modelling. 20 hours course at Tecnalia |
| 2011 | Profesor Ayudante Doctor. Issued by ANECA |
| 2003 | Microsoft Visual Basic. 25 hours course at UPV/EHU |

| 2003 | Working risks prevention. 30h course at Bionatur Biologists Association (UPV/EHU) |
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| 2003 | UNIX administration. 24 hours course at UPV/EHU |
| 2002 | ISO 9001:2000. 30h course at Bionatur Biologists Association (UPV/EHU) |
| 2002 | XML. 16 hours course at University of Deusto |
| 1998 | Environmental sciences (Ekoeskola). 65 hours course at Erreka Ecologist Platform |

Technical expertise

Semantic Web stack: RDF (JSON-LD, TTL), SPARQL, OWL, SHACL, RML

Ontologies: SKOS, DCAT, VoID, Data Cube, WGS84, Open Biomedical Ontologies, Schema,

European Legislation Identifier, and more

Ontology editors: Protégé

Databases: GraphDB, Stardog, Virtuoso, Blazegraph, RDFox, Neo4j, MongoDB, MariaDB

Linked Data: Pubby, Trifid, Pool Party (Semantic Web Company), Corporate Memory (Eccenca

GmbH), Morph-KGC, YARRRML

Libraries: OWL API, RDFLib, Jena, RDF4J

Programming: Java, Python, Bash

Version control: Git (GitHub, GitLab)

Open Data: CKAN, Open Refine

Project management: Jira, Confluence, GitHub projects, Kanban

Cloud computing: Google Cloud, Azure

DevOps: GitHub actions, Docker, Docker compose, Ansible, Bamboo, Jenkins, Travis

Membership

Sociedad Española de Inteligencia Artificial en Biomedicina (BIOMED): https://iabiomed.org/ Sociedad Española de Bioinformática y Biología Computacional (SEBiBC): https://sebibc.es/

Last updated: November 9, 2024