

Ángela Hernández Delgado

Software engineer

31 years old, Spanish Citizen, Based in Canberra.

Fluent in Spanish & English Availability 14 days' notice



Profile

Work Experience:

Software engineer with 7 years professional experience in the software industry:

- 1 month as Software specialist at ANU in Canberra, Australia.
- 2 years as Software engineer at IAC in San Cristóbal de La Laguna, Spain.
- 8 months as Software engineer at Ayuntamiento del Puerto de La Cruz in Puerto de La Cruz, Spain.
- 3 years as Software engineer at Wootix S.L. in San Cristóbal de La Laguna, Spain.
- 1 year as Software engineer at FCGULL in San Cristóbal de La Laguna, Spain.
- 1 year as Software developer at everis Spain S.L. in Madrid, Spain.

Key competences:

- Teamwork.
- Motivation.
- Integrity.
- Problem solving.



Skills / Tools

MATLAB	■■■■■	C / C++	■■■■■
Unix / Linux	■■■■■	Python	■■■■■
GIT	■■■■■	Java	■■■■■
QT	■■■■■	Terraform / Ansible	■■■■■
Proxmox	■■■■■		

About me

Ability to work in teams and to cope with difficult situations. Travelling and moving disposition. Quick adapt to changes, new places and multicultural environment.

Technical Training

- Specialization course “**Linux Embedded Systems**” (Sistemas Empotrados Linux). Instituto de Astrofísica de Canarias (IAC). Tenerife (Spain) March 2022.
- Specialization course “**Linux Driver Development**” (Desarrollo de Drivers en Linux). Instituto de Astrofísica de Canarias (IAC). Tenerife (Spain) April 2022.
- Specialization course “**Real Time Linux Programming**” (Programación Linux en Tiempo Real). Instituto de Astrofísica de Canarias (IAC). Tenerife (Spain) May 2022.





Professional Experience

Australian National University (ANU) – Software specialist.

January 2024 – Present – Canberra, Australia.

Advanced Instrumentation Technology Centre (AITC) Technical Program, Research School of Astronomy and Astrophysics, ANU College of Science. You will report to the Software & I.T.

- ✓ Assist in the development and maintenance of IT systems and software used in project activities.
- ✓ Support studies and evaluation of systems and equipment designs and novel concepts, including assistance in project planning estimates.
- ✓ Provide specialist technical advice to stakeholders as appropriate.

Referees:

- Jon Nielsen (Supervisor)

Institute of Astrophysics of the Canary Islands (IAC) – Software engineer.

November 2021 – December 2023 – San Cristóbal de La Laguna, Spain.

The Instituto de Astrofísica de Canarias (IAC), recognized by the Spanish government as a "Severo Ochoa Centre of Excellence", is a nationally funded research centre that runs two of the best international observatories in the world.

- ✓ Responsible for selection of the software control of the European Solar Telescope (EST).
- ✓ Parallelization of the instrumentation CPU code.
- ✓ Laboratory computer support, improving DARC software.
- ✓ Creation of YAO scripts.
- ✓ Research and test of telescopes control software.
- ✓ Trained in the use of M2, secondary mirror, prototype.
- ✓ Responsible for the selection and administration of development environment.

Tools: C, C++, Java, Python, YAO, Proxmox, Ansible, Terraform, Docker, Kubernetes, Helm, Nexus, Gitlab.

Referees:

- Carmen Marillaj Barreto Cabrera (Supervisor)
- Jorge Quintero Nehrkon (Supervisor)

Ayuntamiento del Puerto de la Cruz – Software engineer.

February 2021 – September 2021- Puerto de la Cruz, Spain.

The IT Department of the City Council of Puerto de la Cruz is responsible for supporting the entire technological infrastructure of the city council and its headquarters. Making innovations in citizen participation.

- ✓ Responsible for the project "Redescúbreme, redescúbrenos: Puerto de la Cruz 2020".
- ✓ Development of planned digital tools, considering the different audiences, citizens, visitors and educational sector.
- ✓ IT support.

Tools: Ruby.

Wooptix S.L. – Software engineer.

November 2017 – October 2020 – San Cristóbal de La Laguna, Spain

Wooptix develops a light field and wavefront imaging platform designed to acquire all light information using a single lens and taking advantage of the full resolution of the sensor. The firm covers video cameras, medical, advanced manufacturing, life science and barcode scanning sectors.

- ✓ Be part of a research project based on plenoptic camera technology.
- ✓ Being part of the project t-eyede ocular system. Developing a common library for all the instrumentation devices as cameras, stages and wavefront sensors.
- ✓ Develop barcode application in multiple platforms as Android and IOS.
- ✓ Develop of kernels for barcode applications.
- ✓ Contribute on a video conference project, fixing safari audio issues, using webRTC technology.

- ✓ Calibration of plenoptic and liquid lens cameras.
- ✓ Creation of depth maps.

Tools: Swift, Android, Grove, Cocoapods, JitPack, Objective C, Java, C/C++, JNI, Python, CUDA, OpenCV.

Referees:

- Óscar Gómez Cardenes (Supervisor)
- Juan Trujillo Sevilla (Supervisor)

Fundación Canaria General de la Universidad de La Laguna – Researcher

April 2016 – November 2017 – San Cristóbal de La Laguna, Spain

FCGULL is committed to being the bridge between the University of La Laguna and the Canarian society. The University and the people who are part of it generate talent and our mission is to promote it and bring it closer to our environment.

- ✓ Research work related to distance detection by passive methods based on the wavefront geometric phase sensor.
- ✓ Participation in the project “Assessment of Plenoptic Refocusing Methods for 3D Vision-Based Relative Navigation”.
- ✓ Participation on ESA Clean Space Industrial Days.

Tools: C++, Python, MATLAB.

Referees:

- Jonás P. Lüke (Supervisor).

everis Spain S.L. (NTTDATA) – Developer

March 2015 – March 2016 - Madrid, Spain

everis is a multinational consulting firm that offers business solutions, strategy and development, maintenance of technological applications and outsourcing. The consulting firm covers the telecommunications, financial institutions, utilities industry, energy, banking, insurance, public administration, media and healthcare sectors.

- ✓ Outsourcing for BBVA.
- ✓ Responsible for maintenance of Java application using Hibernate and Jaspersoft.
- ✓ Support to CRM using Visual Nacar framework and RSA (Rational Software Architect)
- ✓ Modelling front-end.

Tools: HTML, CSS, JavaScript, XML, XSL-FO.

Naxiu Servicios S.L.U. – Software engineer - Scholarship

August 2014 – December 2014 – Santa Cruz de Tenerife, Spain

Technology-based company, founded in 2007 and focused on the provision of value in Information Technology and Communications. Its headquarters are in Canary Islands (Spain), it also provides services in South Africa, under agreements with technology companies in the country, to which supports in the definition and development of e-Government projects.

- ✓ Develop of multiplatform web application using Cordova and jQuery mobile.
- ✓ Error correction and integration of the app for BlackBerry devices.

Tools: jQuery mobile, Cordova, CSS.

Shidix technologies S.L.N.E. – Software engineer - Scholarship

February 2014 – May 2014 – San Cristóbal de La Laguna, Spain

At Shidix Technologies we are specialists in software development, and we want to become your strategic partner in ICT. Our job is to make your day-to-day life easier so you can take care of your business. In addition, we will attend your needs in an integral way, maximizing your investment and generating added value to your business.

- ✓ Develop web applications.

Tools: Python and Django.



Education

BSc Degree – University of La Laguna

2009 – 2014 – La Laguna, Santa Cruz de Tenerife, Spain

Engineer's Degree, Software Degree (ICT). Thesis on the creation for the representation and comparison of meteorological data from the GOTA tool and the AEMET of a convulsive meteorological area such as the Canary Islands and Morocco, carried out in Django.

MSc Degree - Universitat Oberta de Catalunya and Universitat Rovira i Virgili

2017 – 2021 – Tarragona, Catalunya, Spain

Computer engineering and mathematics. Thesis on AI based on the detection of pedestrians and vehicles with a PSPNet using real and simulated images to study of the effects of using real, simulated and mixed datasets.



Publications

- Noda, C. & Schlichenmaier, R & Rubio, LR & Löfdahl, Mats & Khomenko, Elena & Jurčák, J & Leenaarts, J & Kuckein, Christoph & González Manrique, Sergio Javier & Gunar, Stanislav & Nelson, C. & Rodríguez, J & Tziotziou, Kostas & Tsiropoula, G. & Aulanier, Guillaume & Aboudarham, J & Allegri, D & Alsina, Ernest & Amans, Jean-Philippe & Collados, M. (2022). **The European Solar Telescope**. *Astronomy & Astrophysics*. 666.
- Noda, C. & Collados, Manuel & Cabrera, Mary & Cagigal, Miguel & Belío-Asín, Marta & Bienes, Jonai & Bonaque, Sergio & Carballo-Martín, Yanira & Cózar-Castellano, Juan & Chulani, Hareh & Feijóo Amoedo, Noelia & Castellá, Bruno & Rodríguez, Irene & Gonzalez-Cava, Jose Manuel & González, Francisco & Hernández-Delgado, Ángela & López, Roberto & Hernando, Yolanda & Mato, Ángel & Reyes, Nauzet. (2022). **Overview of the status of the European Solar Telescope**. 38. 10.1117/12.2628967.
- Jose M. Gonzalez-Cava, Hareh Chulani, Yolanda Martín, Noelia Feijóo, Luzma Montoya, Horacio Rodríguez Delgado, Jorge Quintero, Francisco González, Ángela Hernández, Alastair Basden, Eric Gendron, and Miguel Núñez Cagigal **"Laboratory results of SCAO: getting ready for the EST MCAO"**, Proc. SPIE 12185, Adaptive Optics Systems VIII, 1218542 (29 August 2022); <https://doi.org/10.1117/12.2628242>
- C. Quintero Noda, R. Schlichenmaier, L. R. Bellot Rubio, M. G. Löfdahl, E. Khomenko, J. Jurcak, J. Leenaarts, C. Kuckein, S. J. González Manrique, S. Gunár, C. J. Nelson, K. Tziotziou, G. Tsiropoula, G. Aulanier, J. Aboudarham, D. Allegri, et al. **"The European Solar Telescope"** <https://doi.org/10.1051/0004-6361/202243867>
- Javier Martin-Hernandez, Ángela Hernández Delgado, Ricardo Oliva-García, Oscar Gomez-Cardenes, and José Gil Marichal-Hernandez **"Using partial stages of Radon transform to detect non straight edges (Conference Presentation)"**, Proc. SPIE 11400, Pattern Recognition and Tracking XXXI, 1140004 (27 April 2020); <https://doi.org/10.1117/12.2557265>
- Ricardo Oliva-García, Jan Gaudestad, Javier Martin-Hernandez, Ángela Hernández-Delgado, Óscar Gómez-Cárdenes, Jonas Lüke, and José M. Rodríguez-Ramos **"Free view point generation based on depth maps computed by a single camera"**, Proc. SPIE 11402, Three-Dimensional Imaging, Visualization, and Display 2020, 114020P (22 April 2020); <https://doi.org/10.1117/12.2558063>
- Rodríguez-Ramos, José & Roqué-Velasco, Alex & Carmona-Ballester, David & Gaudestad, Jan & Martin-Hernández, Javier & Marichal-Hernández, José & Trujillo-Sevilla, Juan & Sicilia-Cabrera, Miguel & Velasco-Ocana, Miriam & Oliva García, Ricardo & Ceruso, Sabato & Bonaque, Sergio & Hernández-Delgado, Ángela & Casanova, Oscar & Gomez-Cardenes, Oscar. (2019). **Wavefront Phase Imaging sensor (WFPI)**.
- David Carmona-Ballester, Juan M. Trujillo-Sevilla, Lara Díaz-García, Daniel Walo, Ángela Hernández-Delgado, Juan J. Fernández-Valdivia, Óscar Casanova-González, Óscar Gómez-Cárdenes, and José M. Rodríguez-Ramos **"Privacy-enabled displays"**, Proc. SPIE 10666, Three-Dimensional Imaging, Visualization, and Display 2018, 1066609 (16 May 2018); <https://doi.org/10.1117/12.2306029>
- David Carmona-Ballester, Juan Manuel Trujillo-Sevilla, Sergio Bonaque-González, Ángela Hernández-Delgado, and José Manuel Rodríguez-Ramos **"Analyzing the impact of the initialization for the nonnegative tensor factorization in tensor displays,"** *Optical Engineering* 57(6), 061603 (23 January 2018). <https://doi.org/10.1117/1.OE.57.6.061603>
- Delgado, Angela & Martinez, Noelia & Lüke, Jonas & Rodríguez-Ramos, José & Gestido, Manuel & Bullock, Matthew. (2017). **On the use of plenoptic imaging technology for 3D vision based relative navigation in space**.



Conferences

- **Ciencia y Tecnología en femenino: Mujeres que cambian el mundo, 2023**
- **Habla con ellas: Mujeres en Astronomía, 2024**
- **Habla con ellas: Mujeres en Astronomía, 2023**
- **Habla con ellas: Mujeres en Astronomía, 2022**
- **Using a plenoptic camera for vision-based navigation in an Active Debris Removal scenario.**
Á Hernández Delgado, N Martínez Rey, JP Lüke, JG Marichal Hernández.
ESA Clean Space Industrial Days 2017
- **Women techmakers, 2017.** Cámaras de visión plenóptica.