

Education

- 2013 – 2017 **PhD Computer Science.** Universidad de Zaragoza, Spain.
- 2013 **MSc Computer Science.** Universidad de Zaragoza, Spain.
MSc Thesis: *A Biophysically Based Appearance Model for Skin Aging (9.5/10)*. Graduated with Honors.
- 2012 **Computer Science Engineer (BSc+MSc).** Universidad de Zaragoza, Spain.
Final Project: *Prefiltering indirect illumination in objects with complex geometry and reflectance (9/10)*.

Research experience

- Oct. 2017 - present **Lead Scientist.** *Desilico Labs. Madrid, Spain.*
- Apr. – Sept. 2017 **Researcher.** *Universidad Rey Juan Carlos. Madrid, Spain.* With Dr. Jorge López Moreno and Prof. Dr. Miguel A. Otaduy.
- 2010 – 2017 **Research student.** *Graphics & Imaging Lab, Universidad de Zaragoza, Spain.* Under the supervision of Prof. Dr. Diego Gutierrez.
- Sept.-Dec. 2016 **Research Intern (3 months).** *Technicolor.* Mixed Illumination Analysis in Single Image for Color Grading.
- June-Sept. 2016 **Research Intern (3 months).** *Walt Disney Animation Studios.* Art Directable Micro-Appearance Modeling of Cloth.
- June-Dec. 2014 **Research Intern (6 months).** *Walt Disney Animation Studios.* Evaluating the relative importance of appearance and dynamics in cloth perception.
- June-August 2012 **Research engineer.** *Porto's Science Faculty (Funded by European Commission Marie Curie Program, 7th Framework).* Real-time realistic skin rendering.

Publications

Journals & Conferences

- 2018 *A Radiative Transfer Framework for Spatially-Correlated Materials.* A. Jarabo, C. Aliaga, D. Gutierrez. *ACM Transactions on Graphics, Vol. 37(4), SIGGRAPH 2018*
- 2017 *Challenges in Appearance Capture and Predictive Modeling of Textile Materials.* C. Castillo, C. Aliaga, and J. López-Moreno. *MAM2018: Eurographics Workshop on Material Appearance Modeling.*
- 2017 *Modeling and Perception of the Appearance of Virtual Humans.* PhD Dissertation, supervised by D. Gutierrez and A. Jarabo. *Universidad de Zaragoza. March 2017.*
- 2017 *An Appearance Model for Textile Fibers.* C. Aliaga, C. Castillo, D. Gutierrez, M.A. Otaduy, J. Lopez-Moreno, A. Jarabo. *Computer Graphics Forum (Proc. of the Eurographics Symposium on Rendering), Volume 36, Number 4 - 2017*
- 2017 *Mixed Illumination Analysis in Single Image for Interactive Color Grading.* S. Duchene, C. Aliaga, T. Pouli, P. Pérez. *Expressive 2017 (Computational Aesthetics, Sketch-Based Interfaces Modeling, Non-Photorealistic Animation and Rendering)*

- 2015 *To Stylize or not to Stylize? Effect of Shape and Material Stylization on the Perception of Computer Generated Faces.* E. Zell, C. Aliaga, A. Jarabo, K. Zibrek, R. McDonnell, D. Gutierrez, M. Botsch. *ACM Transactions on Graphics, Vol.34 (6) (SIGGRAPH Asia 2015)*
- 2015 *Sackcloth or Silk? The Impact of Appearance vs Dynamics on the Perception of Animated Cloth.* C. Aliaga, C.O'sullivan, D. Gutiérrez, R.Tamstorf. *In SAP '15: Proceedings of the ACM Symposium on Applied Perception.*
- 2015 *A Biophysically-Based Model of the Optical Properties of Skin Aging.* J. Iglesias, C. Aliaga, A. Jarabo, D. Gutiérrez. *Computer Graphics Forum, Vol. 34 (2) (EUROGRAPHICS 2015)*
- 2013 *Display Adaptive 3D Content Remapping.* B. Masia, G. Wetzstein, C. Aliaga, R. Raskar, D. Gutiérrez. *Computers&Graphics 2013. Special Issue on Advanced Displays.*

Refereed Posters

- 2016 *Fiber-Level Model for Predictive Cloth Rendering.* C. Aliaga, C. Castillo, D. Gutiérrez, M. A. Otaduy, J. Lopez-Moreno, A. Jarabo. *SIGGRAPH 2016 (3rd place at the ACM Student Research Competition).*
- 2014 *Biophysically-based Aging of Human Skin Appearance.* C. Aliaga, J. Iglesias, A. Jarabo, J.I. Echevarría, D.Gutiérrez. *Spanish Computer Graphics Conference 2014.*
- 2013 *Display-Adaptive 3D Content Remapping.* B. Masia, G. Wetzstein, C. Aliaga, R. Raskar, D. Gutiérrez. *Eurographics Symposium on Rendering 2013.*
- 2012 *Perceptually optimized content remapping for automultiscopic displays.* B. Masia, G. Wetzstein, C. Aliaga, R. Raskar, D. Gutiérrez. *SIGGRAPH 2012.*

Participation in Research Projects

VERVE. Vanquishing fear and apathy through E-inclusion: Personalized and populated Realistic Virtual Environments for clinical, home and mobile platforms.

Funded by European Commission. ICT Program, 7th Framework.

PI: Prof. Dr. Carol O'Sullivan, Prof. Dr. Diego Gutiérrez.

GOLEM. Realistic Virtual Humans.

Funded by European Commission Marie Curie Program, 7th Framework.

PI: Prof. Dr. Diego Gutiérrez.

Modeling and estimation of appearance in 3D objects.

Funded by Diputación General de Aragón. Communauté de Travail des Pyrénées (CTP6/11).

PI: Prof. Dr. Adolfo Muñoz.

Grants and Honors

- 2016 Bronze medal at the ACM Students Research Competition at SIGGRAPH 2016.
- 2013 4-years PhD grant. Diputación General de Aragón (State Government).
- 2012 CAI Europa Grant. *Funding for Porto's Science Faculty visiting research engineer.*
- 2005 Spanish Baccalaureate - Science and Technology. Zaragoza, Spain. *Graduated with Honors.*

Service

Computer Graphics Forum; Pacific Graphics; Transactions on Applied Perception, Computers & Graphics; SIVP; CVM. **Reviewer.**

CEIG 2014, Spanish Conference on Computer Graphics. **Local Committee Member.**

Eurographics Symposium on Rendering 2013. **Local Committee Member.**

Students Supervised

- 2018 **Javier Fabre.** Masters in Computer Graphics, Games and Virtual Reality, Universidad Rey Juan Carlos. *GPU Volumetric Path Tracing for Cloth Rendering (10/10, graduated with honors)*
- 2014 **Carlos Guillen.** Final Degree Project (Software Engineering). *Rendering realistic hair. (8.5/10)*
- 2013 **Balma Félez.** Final Degree Project (Industrial Design Engineer). *Asch Psychological Exp. to Virtual Environments. (8/10)*

Teaching Experience

- 2018-present Advanced Rendering. Second semester subject in Masters in Computer Graphics, Games and Virtual Reality, Universidad Rey Juan Carlos

Programming skills

Proficient with **C/C++**.

Knowledge of Matlab, Python, Javascript.

Working experience in **GPU rendering** using **OpenGL-GLSL** and **DirectX-HLSL**.

Art Experience

- 2011 – 2014 **Graphic Designer** for Iber-world (agency of events).
- 2005 – 2010 **Corporate** and/or **web design**. Eurographics Spanish Chapter, Graphics & Imaging Lab, GOLEM (7th Framework European Project), centromedicopalafox.com, abyssec.com, eroticaenigma.com, apartamentosballbenas.com.
- 2009 – 2010 **Illustrations** for an online company of **board-games** (www.nestorgames.com).
- 2005 – 2009 **Illustrations** for **t-shirts** for Sikkis, a specialized shop in Zaragoza.
- 2008 Design of the official information map for International Exposition 2008. For Zaragoza's City Council.
- 2007 **Live caricature drawing** for company events.

Artistic skills

Highly experienced and skilled at drawing, painting and designing. Traditional and digital.

Proficient in **digital illustration** and vector drawing (Adobe Photoshop, Illustrator).

Wide experience in **3D modeling and rendering** (3D Studio Max, Maya, Zbrush, Mental Ray).

Knowledge of **video editing** and **composition** (Adobe After Effects).

Experience with **2D animation** and **web**.

Languages

Spanish (native), English (fluent), French (Intermediate, *B1 certificate by Official Language School*).

Misc.

Passion for art and animation, both traditional and computer generated.

Great people skills: working experience in public relations and customer service at events and fairs.

Love racquet sports and running.