Raúl Díaz García

LinkedIn: https://www.linkedin.com/in/raul-diaz-garcia/ diaz.raul@gmail.com Homepage: https://rauldiaz.github.io/ rdiazgar@uci.edu

EDUCATION University of California, Irvine

Ph.D., Computer Science September 2011 - October 2016

Thesis: Strong Geometric Context for Scene Understanding

Universitat Autònoma de Barcelona, Spain

M.S., Computer Vision and Artificial Intelligence September 2008 - September 2009 B.S., Computer Science Engineering September 2001 - June 2007

Nottingham Trent University, UK

B.S.'s Final Year Project

February 2006 - June 2006

EXPERIENCE

Amazon Web Services

Since March 2020

Senior IoT Data Scientist & Computer Vision - Professional Services

HP Inc, San Diego, CA

October 2016 - February 2020

Computer Vision and Machine Learning Research Lead

- Software development for 3D scanning, metrology, and quality assessment.
- Research of novel computer vision and machine learning products.
- Helped creating ML/AI engineer and manager recruiting profiles for HR.

CEPL, Barcelona, Spain

May 2010 - July 2011

Project analyst

- Supervised migration from Sony's logistic system to CEPL's.
- Maintained Sony's former legacy applications.

Sony, Barcelona, Spain

August 2006 - April 2010

Several Roles

- Chief Technology Architect
 Lead the design of database schemes and supervised a small team dedicated to implement software interfaces for Intranet development.
- Business Consultant
 Evaluated and designed new business software tools across the sales division.
- Software Developer

 Designed and developed a new warehouse management software for the logistic division, on top of a legacy host environment.

Isislan IT Services, Sabadell, Spain September 2004 - January 2006 IT Engineer

• Network and Database administration of several customer companies.

TEACHING

Universitat Autònoma de Barcelona

Sept 2009 - July 2011

Teacher Assistant

- Introduction to Artificial Intelligence: lead discussion lectures on introductory concepts of AI like search, heuristics, and supervised/unsupervised learning.
- Artificial Vision: taught about initial aspects of vision such as acquisition, filtering, morphological transforms, description, segmentation, and clustering.
- Introduction to algorithms and programming: lead discussion lectures about basic data structures, algorithm concepts, and software life cycles (design, coding, test).
- Databases: taught discussion sessions on relational database architecture, entityrelationship models, design, and normalization.

REFEREED **CONFERENCE** AND

WORKSHOP

PUBLICATIONS

- R. Díaz, A. Marathe. Soft Labels for Ordinal Regression. In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR). Long Beach, California, June 2019.
- R. Díaz, C. Fowlkes. Cluster-wise Ratio Tests for Fast Camera Localization. In Workshop on Visual Odometry & Computer Vision Applications Based on Location Clues, IEEE Conference on Computer Vision and Pattern Recognition (CVPR). Honolulu, Hawaii, July 2017.
- R. Díaz, M. Lee, J. Schubert, C. Fowlkes. Lifting GIS Maps into Strong Geometric Context for Scene Understanding. In Proceedings of the IEEE Winter Conference on Applications of Computer Vision (WACV). Lake Placid, New York, 2016.
- R. Díaz*, S. Hallman*, C. Fowlkes. Detecting Dynamic Objects with Multi-View Background Subtraction. In Proceedings of the IEEE International Conference on Computer Vision (ICCV). Sydney, Australia, December 2013.
- R. Díaz*, S. Hallman*, C. Fowlkes. Multi-View Background Subtraction for Object Detection. In Scene Understanding Workshop, IEEE Conference on Computer Vision and Pattern Recognition (CVPR). Portland, Oregon, June 2013.

TECHNICAL SKILLS

Operating Systems: Windows, Linux **Languages:** Python, C/C++, Matlab, Java

Data Processing: OpenCV, Numpy, Scikit-learn, Scipy

Deep Learning: Tensorflow, Keras, Pytorch Database: MySQL, PostgreSQL, Oracle Front-End: HTML, JSP, JavaScript, JSTL

Coding & Versioning: LATEX, Git, Subversion, Anaconda, Conan

Familiar: OpenVMS, Pascal, Ruby

LANGUAGE **SKILLS**

Spanish and **Catalan** as native speaker.

English:

- TOEFL, 2011.
- Certificate in Advanced English (CAE), University of Cambridge, 2006.

AWARDS AND **GRANTS**

Balsells Fellowship, September 2011 - August 2013. Erasmus Fellowship, February 2006 - June 2006.

ADDITIONAL **ACTIVITIES**

Cooperated in the Catalan House of California, Sept 2011 - Aug 2013. http://www.casalcatalalosangeles.org/

Voluntary member of a presidential candidacy at Club Natació Sabadell, Spain, 2011. http://www.nataciosabadell.com/

Federated Futsal player, Spanish Futsal League:

- Futbol Sala Castellar, 2007 2011, team captain.
- Futbol Sala Bigues i Riells, 2006 2007, team captain.
- Club Natació Sabadell, 2001 2006.

Futsal coach:

• Ferran Casablancas High School, Sabadell, Spain, 2002 - 2007

^{*} equal contribution