# Luciano A. Romero Calla

MSc in Computer Science

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#### Interests

Geometry Processing, Computational Shape Analysis, Computational Geometry, Machine Learning, Image Processing, Algorithms and Data Structures, Parallel Programming, Programming Languages, Robotics.

## Professional Experience

08/2017–Now **Lecturer**, *Software Engineering program*, *La Salle University*, Arequipa - Peru. Courses: Data Structures, Theory of Computation, Objects and Data Abstractions, Analysis and Design of Algorithms.

03/2018-04/2018 Visiting Researcher, VISTA Laboratory, Technion, Haifa - Israel.

09/2017–01/2018 **Lecturer**, Computer Science Master program, National University of Saint Agustin, Arequipa - Peru.

Courses: Algorithms and Data Structures.

04/2017–12/2017 **Lecturer**, Computer Science program, National University of Saint Agustin, Arequipa - Peru.

Courses: Objects and Data Abstractions, Topics in Artificial Intelligence, Advanced Data Structures, Thesis Seminar.

2015–2017 **Software Developer**, *TecZelt - FazGame*, Rio de Janeiro, Brazil. Ruby on Rails backend developer, Unity3d developer.

2014–2014 **Student Researcher**, *Cátedra Concytec - National University of Saint Agustin*, Arequipa - Peru, January - December.

Project: Design of equipment of images acquisition and software for detection of primary and secondary defects in green coffee beans for processing quality control of exportable coffee.

#### Education

2015–2017 **MSc in Computer Science**, *Institute of Computing - Federal Fluminense University*, Niterói, RJ - Brazil.

Prograf UFF (Graphics Processing Research Laboratory), MediaLab UFF.

Dissertation: An Iterative Parallel Algorithm for Computing Geodesic Distances on Triangular Meshes. Supervised by Prof. Anselmo A. Montenegro.

2010–2014 **BSc in Computer Science**, Professional School of Computer Science - National University of Saint Agustin, Arequipa - Peru.

Graduated summa cum laude.

2009–2013 **BSc in System Engineering**, *Professional School of System Engineering - National University of Saint Agustin*, Arequipa - Peru.

2003–2007 High School, I.E. San Juan Bautista de La Salle, Arequipa - Peru.

## Academic Experience

- 2012–Now **Member**, *Image Processing and Data Mining (IPRODAM) Research Group, La Salle University*, Arequipa Peru.
  - Coach, International Collegiate Programming Contest ACM-ICPC South America/South Finals (2018), Cusco Peru.
     Computer Science Program's teams National University of Saint Agustin.
  - Coach, International Collegiate Programming Contest ACM-ICPC South America/South Finals (2017), Arequipa Peru.
     Computer Science Program's teams National University of Saint Agustin.
  - 2016 **Attendee**, *XI Summer School in Discrete Mathematics*, Valparaíso Chile, January 4 8.
  - 2015 **Attendee**, CARLA 2015, Latin American High Performance Computing Conference (LNCC), Petrópolis Brazil, August 26 28.
  - 2014 **Organizer**, Summer School on Computational Analysis of Deformable Shapes by PhD Alex M. Bronstein La Salle University, Arequipa Peru, February 2 10.
  - 2014 **Attendee**, Summer School on Computational Analysis of Deformable Shapes by PhD Alex M. Bronstein La Salle University, Arequipa Peru, February 2 10.
  - 2014 **Contestant**, International Collegiate Programming Contest ACM-ICPC South America/South Finals (2014), Cusco Peru.
  - 2014 **Attendee**, *IX Summer School in Discrete Mathematics*, Valparaíso Chile, January 6 10.
  - 2013 **Contestant**, International Collegiate Programming Contest ACM-ICPC South America/South Finals (2013), Cusco Peru.
  - 2013 **Attendee**, *CLEI 2013 XXXIX Latin American Computing Conference*, Naiguatá, Vargas Venezuela, October 7 11.
  - Organizer, SIBGRAPI 2013 XXVI Conference Graphics, Patterns and Images,
     Arequipa Peru, August 5 8.
     Organization of Conference
  - 2013 **Attendee**, SIBGRAPI 2013 XXVI Conference Graphics, Patterns and Images, Arequipa Peru, August 5 8.
  - 2013 **Attendee**, *Peruvian Programming Camp San Pablo Catholic University*, Arequipa Peru, February 11 March 9.
  - 2012 **Attendee**, *JCC 2012 Jornadas Chilenas de Computación*, Valparaíso Chile, November 12 16.
  - 2011 **Attendee**, Workshop: refinement calculus for object systems (rCos) by PhD Zhiming Liu La Salle University, Arequipa Peru, December 17.
  - 2011 **Contestant**, International Collegiate Programming Contest ACM-ICPC South America/South Finals (2011), Arequipa Peru.

# Languages

Spanish First Language

English Advanced

Portuguese Advanced

#### **Affiliations**

2010–Now **Member**, *Peruvian Computer Society*, SPC. www.spc.org.pe

### **Publications**

- Lizeth Joseline Fuentes Pérez, Luciano Arnaldo Romero Calla, and Anselmo Antunes Montenegro. A dictionary learning approach in gpu for image denoising. Poster presented at NVIDIA GPU Technology Conference 2016, Apr 2016.
- [2] Lizeth Joseline Fuentes Perez, Luciano Romero Romero Calla, Anselmo Antunes Montenegro, Luis Valente, and Esteban Walter Gonzalez Clua. Dynamic game difficulty balancing in real time using evolutionary fuzzy cognitive maps with automatic calibration. SBC Journal on Interactive Systems, 7(1):38–50, 2016. ISSN: 2236-3297.
- [3] Lizeth Joseline Fuentes Perez, Luciano Romero Romero Calla, Luis Valente, Anselmo Antunes Montenegro, and Esteban Walter Gonzalez Clua. Dynamic game difficulty balancing in real time using evolutionary fuzzy cognitive maps. In 2015 14th Brazilian Symposium on Computer Games and Digital Entertainment (SBGames), pages 24–32, Nov 2015.
- [4] Cristian Jose Lopez Del Alamo, Luciano Arnaldo Romero Calla, and Lizeth Joseline Fuentes Perez. Efficient approach for interest points detection in non-rigid shapes. In *Computing Conference (CLEI)*, 2015 Latin American, pages 1–8, Oct 2015.
- [5] Cristian José López Del Alamo, Lizeth Joseline Fuentes Pérez, and Luciano Arnaldo Romero Calla. Parallelization of the algorithm k-means applied in image segmentation. *International Journal of Computer Applications*, 88(17):1–4, February 2014. Published by Foundation of Computer Science, New York, USA.
- [6] C.J. Lopez del Alamo, L.J. Fuentes Perez, L.A. Romero Calla, and W.R. Ramos Lovon. A novel approach for image feature extraction using hsv model color and niters wavelets. In *Computing Conference (CLEI)*, 2013 XXXIX Latin American, pages 1–7, Oct 2013.
- [7] C.J. Lopez del Alamo, L.J. Fuentes Perez, and L.A. Romero Calla. Agrupamiento por similitud de imágenes mediante árbol de expansión mínima y soft heap. *XXIV Encuentro Chileno de Computación*, November 2012. Jornadas Chilenas de Computación, Valparaíso, Chile.