

# Jorge Poco

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## Research Interests

Data Visualization, Data Science, Visual Analytics, Big Data, Machine Learning, and Computer Graphics.

## Education

- Aug-2011 – **Ph.D. Computer Science**, *New York University, USA.*
  - Jun-2015 Thesis: *Visual Intercomparison of Multifaceted Climate Data*  
Advisor: Prof. Dr. Cláudio Silva  
Committee: Juliana Freire, Enrico Bertini, Jean-Daniel Fekete
- Aug-2008 – **M.S. Computer Science**, *University of Sao Paulo, Brazil.*
  - Aug-2010 Thesis: *Neuronal Fibers Visualization Using Multi-Dimensional Projection*  
Advisor: Prof. Dr. Rosane Minghim  
Committee: João Comba, Agma Traina
- Apr-2003 – **B.E. System Engineering**, *San Agustin National University, Perú.*
  - Apr-2008 Computer Science profile

## Professional Experience

- Aug-2018 – **Associate Professor**, *Getulio Vargas Foundation.*
  - Present School of Applied Mathematics
- May-2017 – **Assistant Professor**, *San Pablo Catholic University.*
  - July-2018 Research and Innovation Center in Computer Science
- Aug-2015 – **Postdoctoral Researcher**, *University of Washington.*
  - Jul-2017 Supervisor: Dr. Jeffrey Heer  
Interactive Data Lab
- Aug-2011 – **Research Assistant**, *New York University.*
  - Jun-2015 Supervisor: Dr. Cláudio Silva
- Summer 2013 **Research Intern**, *Xerox Research Center Webster.*
  - Supervisors: Dr. Saurabh Kataria and Dr. Tong Sun
- Summer 2012 **Research Participant**, *Oak Ridge National Laboratory.*
  - Supervisor: Dr. Robert Cook  
Environmental Sciences Division
- Summer 2011 **Junior Technical Staff**, *Kitware Inc.*
  - Supervisor: Dr. Berk Geveci  
Paraview Team
- Aug-2010 – **Research Assistant**, *University of Utah.*
  - May-2011 Supervisor: Dr. Cláudio Silva
- Spring 2010 **Software Engineer Intern**, *Google Inc.*
  - Supervisor: Keir Mierle  
Google Map Team
- Winter 2008 **Software Engineer Intern**, *Google Inc.*
  - Supervisor: Dr. Mei Han  
Computer Vision Research Team

- Apr-2007 – **Software Engineer**, *zAgile Inc.*
- Oct-2007 Supervisor: Sanjiva Nath
- Jan-2007 – **Developer**, *zAgile Inc.*
- Apr-2007 Supervisor: Sanjiva Nath
- Jan-2006 – **Developer**, *Cooperativa de Ahorro y Crédito Alto Selva Alegre.*
- Dec-2006 CoopSoft System
- Jun-2005 – **Teaching Assistant**, *San Agustín National University.*
- Oct-2005 Data Structures

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## Honors and Awards

- 2020 **Best Computer Graphics/Visualization Main Track Papers Awards.**  
Conference on Graphics, Patterns and Images (SIBGRAPI)
- 2019 **Winning Team**, *International Conference on Document Analysis and Recognition.*  
ICDAR Competition on Harvesting raw Tables from Infographics (CHART-Infographics)
- 2019–2022 **CNPq Research Productivity Scholarship - Level 2.**  
National Council for Scientific and Technological Development (CNPq)
- 2019 **Research Excellence Award in Undergraduate and Graduate Thesis (PEIT)**,  
*for being the advisor of Angela Mayhua's winning master thesis.*  
San Pablo Catholic University
- 2017, 2019 **Computer Science Research Excellence Award (PEIC-CS).**  
San Pablo Catholic University
- 2017 **Research Excellence Award (PEIC).**  
San Pablo Catholic University
- 2015 **Certificate of Excellence**, *High performance in the Computer Science Program.*  
NYU Polytechnic Institute of Engineering
- 2014 **Doctoral Colloquium**, *IEEE VIS.*
- 2008–2010 **Master Fellowship.**  
Coordination for the Improvement of Higher Education Personnel (CAPES)
- 2003–2008 **First place in the School of System Engineering.**  
San Agustín National University (UNSA)
- 2005–2007 **Honorable Mention**, *ACM-ICPC South America Contest w/o Brazil*, Perú.  
The ACM International Collegiate Programming Contest
- 2006 **Best Paper Award.**  
5th Congress on Informatics & System in South America - Peru
- 2000–2001 **First Place**, *Academic Competitions for Military High Schools*, Perú.

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## Funded Projects

- 2020–2021 **FONDECYT–World Bank**, *“Ciencia de Datos en la Educación: Análisis de grandes volúmenes de datos usando métodos computacionales para detectar y prevenir problemas de violencia y deserción en entornos educativos”*, Guillermo Camara Chavez (PI), Jorge Poco (Research Associate), et al., PEN S/. 3,277,800.00.  
Incorporation of researchers at UCSP-Perú
- 2019–2021 **FGV–PPA**, *“Modelos Matemáticos e Computacionais de Otimização de Estratégias de Redução dos Níveis de Violência no Brasil”*, J. Poco (co-PI) and Eduardo Massad (co-PI), Brazil, R\$ 800,000.00.  
Financed by the Applied Research and Knowledge Network at FGV.

- 2019–2021 **CNPq-PQ**, “*Understanding Crime Patterns in Urban Areas*”, J. Poco (PI), Brazil, R\$ 39,600.00.  
Research Productivity Scholarship of CNPq.
- 2019–2020 **FGV-EMAp**, “*Topological Data Analysis in Legal Documents*”, J. Poco (PI), Brazil, R\$ 408,000.00.
- 2018–2020 **CienciaActiva**, “*Detection of Functional Anomalies of Shape and Displacement in Temporal Spatial Data*”, W. Zuñiga (PI) and J. Poco (co-PI), Perú, S/. 103,777.00.  
Student master’s project, Perú.
- 2018–2020 **CienciaActiva**, “*Identification and Extraction of Visual Features and Components to Determine the Level of Urban Security through Street Images*”, F. Moreno (PI) and J. Poco (co-PI), Perú, S/. 103,777.00.  
Student master’s project, Perú.
- 2017–2019 **CienciaActiva**, “*CharText: Automatic Graphic Overlays from Text in Documents*”, J. Pinheiro (PI) and J. Poco (co-PI), Perú, S/. 103,777.00.  
Student master’s project, Perú.
- 2017–2019 **CienciaActiva**, “*JamVis: Exploration and Visualization of Traffic Jams*”, E. Rodriguez (PI) and J. Poco (co-PI), Perú, S/. 103,777.00.  
Student master’s project, Perú
- 2016–2018 **CienciaActiva**, “*iGeoMap: A System to create Interactive Visualizations from Static Images of Geographical Maps*”, A. Mayhua (PI) and J. Poco (co-PI), Perú, S/. 103,777.00.  
Student master’s project, Perú.
- 2011–2015 **NYU**, “*Visual Intercomparison of Multifaceted Climate Data*”, J. Poco (PI).  
Ph.D. Work, USA.
- 2008–2010 **CAPES**, “*Neuronal Fibers Visualization using multi-dimensional Projections*”, J. Poco (PI).  
Master Work, Brazil.

## Teaching

- Graduate **Advance Visual Analytics**, *Getulio Vargas Foundation*, Brazil.  
2020-1
- Graduate **Algorithm and Data Structures**, *Getulio Vargas Foundation*, Brazil.  
2019-2
- Graduate **Algorithm and Data Structures**, *San Pablo Catholic University*, Perú.  
2018-1
- Graduate **Foundations in Data Science**, *Getulio Vargas Foundation*, Brazil.  
Summer 2018, 2019-2, 2020-2
- Graduate **Advance Topics in Computer Graphics and Image Processing**, *San Agustin National University*, Perú.  
2017-2
- Graduate **Graphics**, *San Pablo Catholic University*, Perú.  
2017-2
- Undergrad **Programming for Data Science**, *Getulio Vargas Foundation*, Brazil.  
2018-2.
- Undergrad **Data Structures and Algorithms**, *Getulio Vargas Foundation*, Brazil.  
2019-1 and 2020-2.
- Undergrad **Design and Analysis of Algorithms**, *San Pablo Catholic University*, Perú.  
2017-2 and 2018-1.

## Publications

### Refereed Journal Publications

- [1] *CrimAnalyzer: Understanding Crime Patterns in São Paulo*; G. Garcia, J. Alvarenga, **J. Poco**, A. Paiva, M. Batista, C. T. Silva, S. Franca, B. Rogowitz, E. Bertini and C. T. Silva. and L. G. Nonato. *IEEE Transactions on Visualization and Computer Graphics*, (in press), 2019.
- [2] *The Effect of Color Scales on Climate Scientists' Objective and Subjective Performance in Spatial Data Analysis Tasks*; A. Dasgupta, **J. Poco**, B. Rogowitz, E. Bertini and C. T. Silva. *IEEE Transactions on Visualization and Computer Graphics*, 26(3): 1577–1591, 2020.
- [3] *Extracting and Retargeting Color Mappings from Bitmap Images of Visualizations*; **J. Poco**, A. Mayhua, and J. Heer. *IEEE Transactions on Visualization and Computer Graphics*, 24(1): 637–646, 2018.
- [4] *Reverse-Engineering Visualizations: Recovering Visual Encodings from Chart Images*; **J. Poco** and J. Heer. *Computer Graphics Forum*, 36(3): 353–363, 2017.
- [5] *Reducing the Analytical Bottleneck for Domain Scientists: Lessons from a Climate Data Visualization Case Study*; A. Dasgupta, **J. Poco**, E. Bertini, and C. T. Silva. *Computing in Science & Engineering*, 18(1): 92–100, 2016.
- [6] *Exploring Traffic Dynamics in Urban Environments Using Vector-Valued Functions*; **J. Poco**, H. Doraiswamy, H. Vo, J. Comba, J. Freire, and C. T. Silva. *Computer Graphics Forum*, 34(3): 161–170, 2015.
- [7] *Bridging Theory with Practice: An Exploratory Study of Visualization Usage and Design for Climate Model Comparison*; A. Dasgupta, **J. Poco**, Y. Wei, B. Cook, E. Bertini and C. T. Silva. *IEEE Transactions on Visualization and Computer Graphics*, 21(9): 996–1014, 2015.
- [8] *Riding from Urban Data to Insight Using New York City Taxis*; J. Freire, C. T. Silva, H. T. Vo, H. Doraiswamy, N. Ferreira and **J. Poco**. *IEEE Data Engineering Bulletin*, 37(4): 43–55, 2014.
- [9] *Visual Reconciliation of Alternative Similarity Spaces in Climate Modeling*; **J. Poco**, A. Dasgupta, Y. Wei, W. Hargrove, C. Schwalm, D. Huntzinger, R. Cook, E. Bertini, and C. T. Silva. *IEEE Transactions on Visualization and Computer Graphics*, 20(12): 1923–1932, 2014.
- [10] *SimilarityExplorer: A Visual Inter-Comparison Tool for Multifaceted Climate Data*; **J. Poco**, A. Dasgupta, Y. Wei, W. Hargrove, C. Schwalm, R. Cook, E. Bertini, and C. T. Silva. *Computer Graphics Forum*, 33(3): 341–350, 2014.
- [11] *Visual Exploration of Big Spatio-Temporal Urban Data: A Study of New York City Taxi Trips*; N. Ferreira, **J. Poco**, H. T. Vo, J. Freire and C. T. Silva. *IEEE Transactions on Visualization and Computer Graphics*, 19(12): 2149–2158, 2013.
- [12] *UV-CDAT: Analyzing Climate Datasets from a User's Perspective*; E. Santos, **J. Poco**, Y. Wei, S. Liu, R. Cook, D. N. Williams, and C. T. Silva. *Computing in Science & Engineering*, 15(1): 94–103, 2013.
- [13] *Ultrascale Visualization of Climate Data*; D. N. Williams, T. Bremer, C. Doutriaux, J. Patchett, S. Williams, G. Shipman, R. Miller, D. R. Pugmire, B. Smith, C. Steed,

E. W. Bethel, H. Childs, H. Krishnan, P. Prabhat, M. Wehner, C. T. Silva, E. Santos, D. Koop, T. Ellqvist, **J. Poco**, B. Geveci, A. Chaudhary, A. Bauer, A. Pletzer, D. Kindig, G. L. Potter and T. P. Maxwell. *IEEE Computer*, 46(9): 68–76, 2013.

- [14] *Employing 2D Projections for Fast Visual Exploration of Large Fiber Tracking Data*; **J. Poco**, D. M. Eler, F. V. Paulovich and R. Minghim. *Computer Graphics Forum*, 31(3pt2): 1075–1084, 2012.
- [15] *A Framework for Exploring Multidimensional Data with 3D Projections*; **J. Poco**, R. Etemadpour, F. V. Paulovich, T. V. Long, P. Rosenthal, M. C. F. Oliveira, L. Linsen and R. Minghim. *Computer Graphics Forum*, 30(3): 1111–1120, 2011.
- [16] *Piecewise Laplacian-Based Projection for Interactive Large Data Exploration and Organization*; F. V. Paulovich, D. M. Eler, **J. Poco**, C. P. Botha, R. Minghim and L. G. Nonato. *Computer Graphics Forum*, 30(3): 1091–1100, 2011.

### Refereed Conferences & Workshop Publications

- [17] *Mirante: A Visualization Tool for Analyzing Urban Crimes*; G. Garcia-Zanabria, E. Gomez-Nieto, J. Silveira, **J. Poco**, M. Nery, S. Adorno, and L. G. Nonato. *Conference on Graphics, Patterns and Images (SIBGRAPI)*, 2020. **BEST-PAPER**
- [18] *Extracting Visual Encodings from Map Chart Images with Color-encoded Scalar Values*; A. Mayhua, E. Gomez-Nieto, J. Heer and **J. Poco**. *Conference on Graphics, Patterns and Images (SIBGRAPI)*, 2018.
- [19] *Using Maximum Topology Matching to Explore Differences in Species Distribution Models*; **J. Poco**, H. Doraiswamy, M. Talbert, J. Morissette, and C. T. Silva. *IEEE SciVis*, 2015.
- [20] *Visual Inter-Comparison of Multifaceted Climate Data*; **J. Poco**. *Doctoral Colloquium, IEEE VIS* 2014.
- [21] *Integrating Data into Scientific Workflows for Terrestrial Biosphere Model Evaluation through Brokers*; Y. Wei, R. B. Cook, F. Du, A. Dasgupta, **J. Poco**, D. Huntzinger, C. Schwalm, E. Boldrini, M. Santoro, J. Pearlman, F. Pearlman, S. N., and S. J. Khalsa. *American Geophysical Union*, 2013.
- [22] *Global Net Land Carbon Sink: Results from the Multi-Scale Synthesis and Terrestrial Model Intercomparison Project (MsTMIP)*; D. Huntzinger, C. Schwalm, A. Michalak, R. B. Cook, A. R. Jacobson, K. Schaefer, Y. Wei, A. Dasgupta, **J. Poco**, and MsTMIP modeling teams. *American Geophysical Union*, 2013.
- [23] *Face Tracking and Recognition using Hybrid Techniques for Each Process Phase*; **J. Poco**, *Proceedings of the 5th Congress on Informatics & System in South America, Tacna-Perú*. 2006. In Spanish. **BEST-PAPER**
- [24] *A Proposal for Face Tracking and Recognition in Image Sequences*; J. Chuquitaype, J. Mamani, **J. Poco**. *Proceedings of the Peruvian Computing Week, Arequipa-Perú*. 2006. In Spanish.

### Edited Proceedings

- [25] *Proceedings of XI Peruvian Symposium in Computer Graphics and Imaging (SCGI-2017)*; **J. Poco**, E. Gomez-Nieto, and A. Cuadros-Vargas, Arequipa, Peru, 2017.

### Invited Posters

- [26] *Towards Automatic Chart Interpretation*; **J. Poco**. *Early Career Researcher Symposium*. 2018.

- [27] *Visual Inter-Comparison of Multifaceted Climate Models*; **J. POCO**, A. Dasgupta, Y. Wei, R. B. Cook, E. Bertini, and C. Silva. Moore-Sloan Data Science Environment. 2014.
- [28] *Visual Exploration of Big Spatio-Temporal Urban Data: A Study of New York City Taxi Trips*; N. Ferreira, **J. POCO**, H. T. Vo, J. Freire and C. T. Silva. Moore-Sloan Data Science Environment. 2014.
- [29] *SimilarityExplorer: A Visual Inter-Comparison Tool for Multifaceted Climate Data*; Y. Wei, R. B. Cook, **J. POCO**, A. Dasgupta, B. Hargrove, C. Schwalm, E. Bertini, and C. Silva. ORNL CCSI Science Advisory Board Meeting. 2014.
- [30] *A Critical Evaluation of Visualization Design for Terrestrial Biosphere Model Inter-Comparison*; A. Dasgupta, **J. POCO**, Y. Wei, R. B. Cook, D. Huntzinger, E. Bertini, and C. T. Silva. EVA Working Group, DataONE. 2013.
- [31] *Building Fundamental Components for the Integrated Model Intercomparison Framework (IMIF)*; F. Du, Y. Wei, R. Cook, A. Dasgupta, **J. POCO**. EVA Working Group, DataONE. 2013.
- [32] *Visualization of Correlations in NYC Urban Data*; **J. POCO**, S. Kataria, and T. Sun. XRCW Summer Researcher Poster Session. 2013.
- [33] *Provenance-Aware Earth Science Data Exploration, Visualization, and Analysis Based on UV-CDAT Workflows*; Y. Wei, R. B. Cook, **J. POCO**, A. Dasgupta, B. Ludaescher, C. Schwalm, D. Huntzinger, and A. Michalak. ORNL CCSI Science Advisory Board Meeting. 2013.
- [34] *Exploring and Analyzing Model Output using Visualization Tools*; **J. POCO**, Y. Wei, S. Liu, C. T. Silva, and R. B. Cook. DataONE All-Hands Meeting. 2012.

### Abstracts

- [35] *Understanding Safety Based on Urban Perception*; Felipe MorenoVera and **J. POCO**. Minisymposium on Mathematics Against Crime (MACri CNMAC). 2019.

### Technical Reports

- [36] *UV-CDAT Three-Year Comprehensive Report*; A. Bauer, A. Chaudhary, B. Geveci, H. Krishnan, D. Bader, T. Bremer, C. Doutriaux, D. Fedor-Thurman, M. Harris, E. Leung, R. McCoy, J. Ahrens, C. Canada, P. Jones, B. Nouanesengsy, J. Patchett, S. Williams, T. Maxwell, G. Potter, C. DeLuca, R. O'Kuinghttons, R. Oehmke, D. Pugmire, G. Shipman, B. Smith, C. Steed, B. Burnett, A. Dasgupta, T. Ellqvist, D. Koop, E. Marques, **J. POCO**, R. Rampin, C. Silva, H. Vo, D. Kindig, A. Pletzer, C. Christensen, S. Kumar, V. Pascucci, G. Scorzelli and B. Summa. 2013.
- [37] *A Fast Projection Technique and its Applications to Visualization of Large Data Sets*; F. Paulovich, D. Eler, **J. POCO**, L. Nonato, C. P. Botha, R. Minghim. University of Sao Paulo, N°349. 2010.

### Unrefereed Publications

- [38] *Internship@Google: Experiencias de Estudiantes Peruanos (In Spanish: Internship@Google Peruvian students' experiences)*; R. Lazo, M. Bellido, **J. POCO**. CompuScientia, Volume 1, 2011.

### Theses

- [39] *Visual Intercomparison of Multifaceted Climate Data*; **Ph.D. thesis**, New York University, USA, 2015.

- [40] *Neuronal fibers visualization using multi-dimensional projection*; **M.Sc. thesis**, University of Sao Paulo, Brazil, 2010. In Portuguese.

## Invited Talks

### **Towards Automatic Chart Interpretation**

Oct. 2020 UNSA – Computing Week – 3rd Edition, Arequipa, Perú

Oct. 2020 Webinar ULASALLE, Arequipa, Perú

Nov. 2017 XVIII International Congress of Computer and Systems, Tacna, Perú

### **Understanding Safety Based on Urban Perception**

Sep. 2019 Minisymposium on Mathematics Against Crime (MACri), MG, Brazil

### **CrimAnalyzer: Understanding Crime Patterns in São Paulo City**

Jun. 2019 Instituto de Matemática Pura e Aplicada (IMPA), RJ, Brazil

Mar. 2019 Workshop Estudos Quantitativos sobre Crime, Fundação Getulio Vargas, RJ, Brazil

### **Visualization in Data Science**

Jul. 2018 Introduction to Data Science Bootcamp, Fundação Getulio Vargas, RJ, Brazil

Mar. 2018 Seminario Data Science, Arequipa, Perú

Jan. 2018 Introduction to Data Science Bootcamp, Fundação Getulio Vargas, RJ, Brazil

### **Extracting and Retargeting Color Mappings from Bitmap Images of Visualizations**

Feb 2018 Instituto de Ciências Matemáticas e de Computação, São Carlos, SP, Brazil

Nov. 2017 XVIII Congreso Internacional de Ingeniería en Informática y Sistemas, Tacna, Peru

Dec. 2017 Simposio de Inteligencia Artificial - UNAM 2017, Ilo, Peru

### **Using Maximum Topology Matching to Explore Differences in Species Distribution Models**

Jul 2016 Joint Statistical Meetings, Recent Advances in Information Visualization, Chicago

### **Using Visualization to Analyze and Understand Large Spatio-Temporal Data**

Feb. 2015 IBM Thomas J. Watson Research Center, Yorktown Heights, NY

Feb. 2015 Tableau Research, Seattle, WA

### **Climate Data Visualization**

May. 2014 NYU Poly School of Engineering Research Expo, NY

### **Using Taxi Data to Estimate and Explore Uncertain Traffic Patterns in Large Urban Centers**

Dec. 2013 VII Simposio de Computación Gráfica y Procesamiento de Imágenes (SCGI), Perú

### **Visualization of Correlations in NYC Urban Data**

Oct. 2013 Seminar at Xerox Research Group, Rochester, NY

### **Provenance-Enabled Exploration and Analysis MsTMIP Data**

Feb. 2013 EVA Working Group Meeting, Albuquerque, NM

### **UV-CDAT: Exploring and Analyzing MsTMIP Dataset**

Aug. 2012 All Hands Meeting, Albuquerque, NM

### **Uncertainty in Isocontours**

Dec. 2011 V Simposio de Computación Gráfica y Procesamiento de Imágenes (SCGI), Perú

### **Estimating Depth Complexity of Meshes using Dual-Ray Transformations**

Dec. 2010 IV Simposio de Computación Gráfica y Procesamiento de Imágenes (SCGI), Perú

### **Visualizing Tensorial Data Sets**

Dec. 2009 III Simposio de Computación Gráfica y Procesamiento de Imágenes (SCGI), Perú

## Removing Objects in Images

Dec. 2008 II Simposio de Computación Gráfica y Procesamiento de Imágenes (SCGI), Perú

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## Students

### Current

- 2019 – Present Marcos Raimundo (Post-Doc, FGV, Brazil)
- 2019 – Present Felipe Moreno (Master, UCSP, Perú)
- 2019 – Present Walter Zuñiga (Master, UCSP, Perú)
- 2019 – Present Giovanni A. Valdrighi (Undergrad, FGV, Brazil)
- 2019 – Present Lucas Domingues (Undergrad, FGV, Brazil)
- 2018 – Present Vitória Guardieiro (Undergrad, FGV, Brazil)
- 2018 – Present Matheus Paes (Undergrad, FGV, Brazil)
- 2017 – Present Germain Garcia (PhD, USP, Brazil, Co-advised with Luis Gustavo Nonato)

### Former

- 2016 – 2018 Angela Mayhua (Master, UCSP, Perú)
- 2018 – 2019 Elio Rodriguez (Master, UCSP, Perú)
- 2018 – 2019 Joao Pinheiro (Master, UCSP, Perú)

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## Professional Activities

### Papers Chair

- 2018 I Simposio de Ciencia de la Computación para el Estudio del Cambio Climático en la Amazonia Peruana, with *E. Gomez-Nieto*
- 2017 XI Peruvian Symposium in Computer Graphics and Imaging (SCGI) with *E. Gomez-Nieto and A. Cuadros-Vargas*

### Program Committee

- 2020 IEEE VIS 2020 Short Papers
- 2020 IEEE Information Visualization (InfoVis)
- 2020 XLVI Conferencia Latinoamericana de Informática (CLEI)
- 2019 SIBGRAPI Main Track
- 2019 Elsevier Computers & Graphics Journal (C&G) Track of SIBGRAPI
- 2018 5th International Conference on Information Management and Big Data (SimBig)
- 2018 Latin America Data Science Workshop (LADaS)
- 2018 IEEE Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON)
- 2015 – 2020 Latin American Symposium on Computer Graphics, Virtual Reality, and image Processing (CLEI–SLCGRVPI)
- 2017 7th Workshop on Visual Analytics, Information Visualization and Scientific Visualization (SIBGRAPI–WVIS)
- 2013 Workshop of Undergraduate Works (SIBGRAPI–WUW)
- 2010 – 2011 International Conference of the Peruvian Computer Society (CSPC)

### Organizer

- 2020 Summer School on Data Science FGV-RJ with *Luis Gustavo Nonato*
- 2019 Workshop on Data Science at FGV-RJ with *Cesar Camacho*
- 2017 XI Peruvian Symposium in Computer Graphics and Imaging (SCGI) with *E. Gomez-Nieto and A. Cuadros-Vargas*



2016 X Peruvian Symposium in Computer Graphics and Imaging (SCGI) with *O. Florez*

### **Reviewer**

- 2020 IEEE Transactions on Knowledge and Data Engineering (TKDE)  
2017 – 2020 IEEE Transactions on Visualization and Computer Graphics (TVCG)  
2015 – 2020 IEEE Information Visualization (InfoVis)  
2015 – 2020 IEEE Scientific Visualization (SciVis)  
2015 – 2020 IEEE Visual Analytics Science and Technology (VAST)  
2015 – 2020 EuroVis  
2019 IEEE Computer Graphics and Applications (CG&A)  
2017 – 2020 ACM Human Factors in Computing Systems (CHI)  
2017 ACM Computer-Supported Cooperative Work (CSCW)  
2016 ACM User Interface Software and Technology (UIST)  
2016 Information Visualization Journal  
2019 International Conference Information Visualisation (IV)  
2016 Sensors Journal  
2015 – 2016 Conferencia Latinoamericana en Informática (CLEI)  
2015 Journal on Image and Video Processing (EURASIP)  
2016 PeerJ Computer Science  
2014 IEEE International Conference on Big Data (IEEE BigData)  
2012 – 2014 CompuScientia  
2012 – 2014, Conference on Graphics, Patterns and Images (SIBGRAPI)  
2019  
2009 – 2011 International Conference of the Peruvian Computer Society (CSPC)  
2009 – 2011 Simposio de Computación Gráfica y Procesamiento de Imágenes

### **Problem Setter**

- 2011 – 2013 Peruvian Programming Contest (CPP)

### **Student Volunteer**

- 2013 – 2014 IEEE VIS  
2004 Latin American Computing Conference (CLEI)  
2004 Workshop Iberoamericano de Ingeniería de Requisitos y Desarrollo de Ambientes de Software (IDEAS)

### **Member**

Institute of Electrical and Electronics Engineers (IEEE)  
Association for Computing Machinery (ACM)

### **PhD/Master/Habilitation Defense Committees**

- Mar. 2019 Jose Castro, "*Generación interactiva de ensamblajes de métodos de agrupamiento para la exploración de datos*" (Master Qualification, UCSP, Perú)  
Oct. 2018 Gina Muñoz Salas, "*Estudio de Distancias para Datos Mixtos para Análisis Visual de Datos Multidimensionales*" (Master Qualification, UCSP, Perú)  
Aug. 2018 Pavel Mendoza Villafane, "*Un Método de Correspondencia de Imágenes Basado en Superpixels*" (Master Qualification, UCSP, Perú)  
Aug. 2017 Jainor Cárdenas Choque, "*Generación de Triangulaciones de Delaunay Persistentes*" (Master Defense, UCSP, Perú)  
Feb. 2017 José Galdos Chávez, "*Reconocimiento de Rostros con Elastic Bunch Graph Matching en Aplicaciones de Video*" (Master Defense, UCSP, Perú)

- Jan. 2017 Mery Paco Ramos, "*Modelo basado en Deep Learning para el pronóstico de series de tiempo climatológicas*" (Master Qualifying Exam, UNSA, Perú)
- Oct. 2016 Germain Garcia Zanabria, "*Un Método Radial Interactivo Para la Exploración Visual de Datos en Alta Dimensión*" (Master Defense, UCSP, Perú)
- Aug. 2015 José Galdos Chávez, "*Reconocimiento de Rostros con Elastic Bunch Graph Matching en Aplicaciones de Video*" (Master Qualification, UCSP, Perú)
- Aug. 2015 Germain Garcia Zanabria, "*Un Método Radial Interactivo Para la Exploración Visual de Datos en Alta Dimensión*" (Master Qualification, UCSP, Perú)

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## Software contributions

### **SimilarityExplorer.**

SimilarityExplorer is an exploratory visualization tool that facilitates similarity comparison tasks across both space and time through a set of coordinated multiple views.

Project website: <http://vgc.poly.edu/projects/VisualReconciliation/>

### **TaxiVis.**

TaxiVis is a visual analytic tool to explore and analyze New York City Taxi Trips.

Available at: <https://github.com/ViDA-NYU/TaxiVis>

### **Ultrascale Visualization Climate Data Analysis Tools (UV-CDAT).**

UV-CDAT is a powerful and complete front-end to a rich set of visual-data exploration and analysis capabilities well suited for climate-data analysis problems.

Available at: <https://github.com/UV-CDAT>

### **Projection Explorer (Pex).**

Pex is a program to explore data sets using multi-dimensional projection. My work was to extend this tool to support 3D projections and add new interaction features.

Available at: <http://infoserver.lcad.icmc.usp.br/infovis2/Tools>

### **VisPipeline.**

It is a general tool where users can create their own pipelines to explore data sets using many projection algorithms. It supports documents, images and neuronal fibers exploration.

Available at: <http://infoserver.lcad.icmc.usp.br/infovis2/Tools>

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## Languages

|            |           |   |
|------------|-----------|---|
| Spanish    | Native    |   |
| English    | Very Good | <i>Fluent read, I can understand, speak and write</i> |
| Portuguese | Very Good | <i>Fluent read, I can understand, speak and write</i> |
| French     | Basic     | <i>I can read, understand and write</i>               |

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## References

Available on request.