Vicente Ordóñez-Román (publishes as Vicente Ordonez)

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RESEARCH INTERESTS

My research lies at the intersection of computer vision, natural language processing and machine learning. I am especially interested in analyzing, and mining useful human insights from enormous amounts of images with associated text to improve visual recognition. I also research and advocate for fairness and accountability in machine learning applications.

CURRENT POSITIONS

Associate Professor — July 2021 - Present
Rice University, Houston, Texas.
Department of Computer Science, George R. Brown School of Engineering.
Leading the Vision, Language and Learning Lab – https://www.vislang.ai.

Visiting Academic — July 2021 - Present
Amazon Alexa AI
Working with the Computer Vision group on vision and language projects.

Visiting Faculty — July 2021 - Present
University of Virginia (UVA), Charlottesville, Virginia.
Department of Computer Science, School of Engineering and Applied Science.

HONORS AND AWARDS

U.S. National Science Foundation CAREER Award, 2021

Research Highlight of the Communications of the ACM, December 2020 Issue.

Facebook Research Award, 2020.

Google Faculty Research Award, 2017.

IBM Faculty Award, 2017.

Best Long Paper Award, 2017.
- Intl. Conf. on Empirical Methods in Natural Language Processing (EMNLP), 2017.

Research Highlight of the Communications of the ACM, March 2016 Issue.

Allen Institute for Artificial Intelligence Hackathon 2015 – *Peer Favorite Award*.

Best Paper Award – IEEE Marr Prize 2013.
- International Conference on Computer Vision (ICCV), 2013.

Yahoo! Key Scientific Challenges Award, 2012.

Renaissance Technologies Fellowship, 2009 - 2011.

Philantropic Society Medal, Guayaquil, Ecuador, 2007.

EDUCATION

The University of North Carolina at Chapel Hill (UNC) — 2013 - 2015
Doctor of Philosophy in Computer Science
Thesis: Language and Perceptual Categorization in Computational Visual Recognition
Advisor: Tamara L. Berg

Stony Brook University, The State University of New York (SUNY) — 2009 - 2013
Master of Science in Computer Science

Escuela Superior Politécnica del Litoral (ESPOL), Ecuador. — 2003 - 2008
Computer Engineering Degree (GPA: 9.22/10.0)

ACADEMIC EXPERIENCE	University of Virginia (UVA), Charlottesville, Virginia. Assistant Professor, Department of Computer Science School of Engineering and Applied Science. Led for five years the Vision, Language and Learning Lab (vislang.ai)	2016 - 2021

University of Virginia (UVA), Charlottesville, Virginia.   2016 - 2021
Assistant Professor, Department of Computer Science
School of Engineering and Applied Science.
Led for five years the Vision, Language and Learning Lab (vislang.ai)

The University of North Carolina at Chapel Hill   2013 - 2015
Research Assistant, Department of Computer Science
Advised by Prof. Tamara Berg and also worked with professors Yejin Choi and Alex Berg.

Stony Brook University (SUNY), Stony Brook, New York.   2010 - 2013
Research Assistant, Vision and Digital Media Lab
Advised by Prof. Tamara Berg and also worked with professors Yejin Choi and Alex Berg.

Center for Information Technologies (ESPOL), Guayaquil, Ecuador.   2006 - 2009
Research Assistant, Technology Enhanced Learning Group
Research on technology for education under Prof. Xavier Ochoa.

OTHER
EXPERIENCE

Yarn Labs Inc, Cambridge, Massachusetts   September 2019 - March 2020
Independent Contractor
Research on the state of the field and regulation of facial recognition technologies, with funding from the MacArthur Foundation.

Adobe Research , College Park, Maryland.   Summer 2019
Visiting Professor, Document Intelligence Lab (DIL)
Pursuing projects at the intersection of Computer Vision and NLP for documents.

Allen Institute for Artificial Intelligence (AI2), Seattle, Washington.   2015 - 2016
Visiting Research Fellow, Computer Vision Group (now PRIOR)
Worked at the intersection of Vision and Language in the Computer Vision group.

Microsoft Research, Cambridge, Massachusetts.   Summer 2014
Research Intern, Computer Vision Group
Large scale data-driven scene parsing using deep learning features.
Mentors: Ce Liu and Michael Rubinstein.

eBay Research Labs, San Jose, California.   Summer 2013
Research Intern, Computer Vision Group
Analysis of furniture images as part of the Computer Vision group.
Mentors: Robinson Piramuthu and Vignesh Jagadeesh.

Google, Mountain View, California.   Summer 2011
Software Engineering Intern, Android Multimedia Content Analysis Group
Automatic organization of personal image collections using visual features.
Mentors: Rodrigo Carceroni and Wei Hua.

Google, Mountain View, California.   Spring 2008, Summer 2008
Software Engineering Intern, Google Earth
Automated quality analysis of satellite images for Google Earth and Google Maps.
Mentor: Rodrigo Carceroni.

WHITEPAPER

Facial Recognition Technologies in the Wild: A Call for a Federal Office.
Erik Learned-Miller, Vicente Ordóñez, Jamie Morgernstern, Joy Buolamwini.
May 2020. https://www.ajlunited.org/federal-office-call

Facial Recognition Technologies: A Primer.
Joy Buolamwini, Vicente Ordóñez, Jamie Morgernstern, Erik Learned-Miller.
May 2020. https://www.ajlunited.org/federal-office-call

PREPRINTS

Evolving Image Compositions for Feature Representation Learning.
Paola Cascante-Bonilla, Arshdeep Sekhon, Yanjun Qi, Vicente Ordonez
arxiv:2106.09011. June 2021. https://arxiv.org/abs/2106.09011

Instance-level Image Retrieval using Reranking Transformers.
Fuwen Tan, Jiangbo Yuan, Vicente Ordonez
arxiv:2103.12236. March 2021. https://arxiv.org/abs/2012.01250

Chair Segments: A Compact Benchmark for the Study of Object Segmentation.
Leticia Pinto-Alva, Ian K. Torres, Rosangel Garcia, Ziyan Yang, Vicente Ordonez
arxiv:2012.01250. December 2020. https://arxiv.org/abs/2012.01250

VisualNews : Benchmark and Challenges in Entity-aware Image Captioning.
Fuxiao Liu, Yinghan Wang, Tianlu Wang, Vicente Ordonez.
arxiv:2010.03743. October 2020. https://arxiv.org/abs/2010.03743

MEDIRL: Predicting the Visual Attention of Drivers via Maximum Entropy Deep Inverse
Reinforcement Learning. Sonia Baee, Erfan Pakdamanian, Inki Kim, Lu Feng, Vicente Or-
donez, Laura Barnes. arXiv:1912.07773. December 2019.
https://arxiv.org/abs/1912.07773

Moviescope: Large-scale Analysis of Movies using Multiple Modalities.
Paola Cascante-Bonilla, Kalpathy Sitaraman, Mengjia Luo, Vicente Ordonez.
arXiv:1908.03180. August 2019. https://arxiv.org/abs/1908.03180

PUBLICATIONS

General Multi-label Image Classification with Transformers.
Jack Lanchantin, Tianlu Wang, Vicente Ordonez, Yanjun Qi.
Conf. on Computer Vision and Pattern Recognition. CVPR 2021.

Black-box Explanation of Object Detectors via Saliency Maps.
Vitali Petsiuk, Rajiv Jain, Varun Manjunatha, Vlad I. Morariu, Ashutosh Mehra, Vicente
Ordonez, Kate Saenko. Conf. on Computer Vision and Pattern Recognition. CVPR 2021.
(Oral Presentation)

Curriculum Labeling: Revisiting Pseudo-Labeling for Semi-Supervised Learning.
Paola Cascante-Bonilla, Fuwen Tan, Yanjun Qi, Vicente Ordonez.
The Thirty-Fifth AAAI Conference on Artificial Intelligence. AAAI 2021.

Enabling AI at the edge with XNOR Networks.
Mohammad Rastegari, Vicente Ordonez, Joseph Redmon, Ali Farhadi.
Communications of the ACM. December 2020 Vol 63, No. 12. CACM 2020.
(Research Highlight, Invited Paper)

Using Visual Feature Space as a Pivot Across Languages.
Ziyan Yang, Leticia Pinto-Alva, Franck Dernoncourt, Vicente Ordonez.
Findings of the Association for Computational Linguistics: EMNLP 2020.

Double-Hard Debias: Tailoring Word Embeddings for Gender Bias Mitigation.
Tianlu Wang, Xi Victoria Lin, Nazneen Fatema Rajani, Bryan McCann, Vicente Ordonez,
Caiming Xiong. Association for Computational Linguistics. ACL 2020.

Generative-discriminative Feature Representations for Open-set Recognition.
Pramuditha Perera, Vlad I. Morariu, Rajiv Jain, Varun Manjunatha, Curtis Wigington, Vicente Ordonez, and Vishal M. Patel. Conf. on Computer Vision and Pattern Recognition.
CVPR 2020.

Testing DNN Image Classifiers for Confusion & Bias Errors.
Yuchi Tian, Ziyuan Zhong, Vicente Ordonez, Gail Kaiser, Baishakhi Ray.
International Conference on Software Engineering. ICSE 2020.

Drill-down: Interactive Retrieval of Complex Scenes using Natural Language Queries .
Fuwen Tan, Paola Cascante-Bonilla, Hui Wu, Xiaoxiao Guo, Song Feng, Vicente Ordonez.
Conf. on Neural Information Processing Systems. NeurIPS 2019. Vancouver, Canada.

Balanced Datasets Are Not Enough: Estimating and Mitigating Gender Bias in Deep Image
Representations . Tianlu Wang, Jieyu Zhao, Mark Yatskar, Kai-Wei Chang, Vicente Ordonez.
International Conference on Computer Vision. ICCV 2019. Seoul, South Korea.

Text2Scene: Generating Compositional Scenes from Textual Descriptions.
Fuwen Tan, Song Feng, Vicente Ordonez.
Conf. on Computer Vision and Pattern Recognition. CVPR 2019.
Long Beach, California. (Oral Presentation – Best Paper Finalist – top ∼ 1% of submissions)

Chat-crowd: A Dialog-based Platform for Visual Layout Composition.
Paola Cascante-Bonilla, Xuwang Yin, Vicente Ordonez, Song Feng.
North American Chapter of the Association for Computational Linguistics. NAACL 2019.
System Demonstrations Track. Minneapolis, Minnesota.

Gender Bias in Contextualized Word Embeddings.
Jieyu Zhao, Tianlu Wang, Mark Yatskar, Ryan Cotterell, Vicente Ordonez, Kai-Wei Chang.
North American Chapter of the Association for Computational Linguistics. NAACL 2019.
short. Minneapolis, Minnesota. (Oral Presentation)

Deep Feature Aggregation and Image Re-ranking with Heat Diffusion for Image Retrieval.
Shanmin Pang, Jin Ma, Jianru Xue, Jihua Zhu, Vicente Ordonez.
IEEE Transactions on Multimedia 2019. (Journal Paper)

Feedback-prop: Convolutional Neural Network Inference under Partial Evidence.
Tianlu Wang, Kota Yamaguchi, Vicente Ordonez. Conf. on Computer Vision and Pattern
Recognition. CVPR 2018. Salt Lake City, Utah.

Gender Bias in Coreference Resolution: Evaluation and Debiasing Methods.
Jieyu Zhao, Tianlu Wang, Mark Yatskar, Vicente Ordonez, Kai-Wei Chang.
North American Chapter of the Association for Computational Linguistics. NAACL 2018.
short. New Orleans, Louisiana.

Building Discriminative CNN Image Representations for Object Retrieval using the Replicator Equation. Shanmin Pang, Jihua Zhu, Jiaxing Wang, Vicente Ordonez, Jianru Xue. Pattern Recognition 2018. Volume 83. Pages 150-160. Accepted April 2018. (Journal Paper)

Where and Who? Automatic Semantic-Aware Person Composition.
Fuwen Tan, Crispin Bernier, Benjamin Cohen, Vicente Ordonez, Connelly Barnes.
Winter Conference on Applications of Computer Vision WACV 2018. Lake Tahoe, NV.

Men Also Like Shopping: Reducing Gender Bias Amplification using Corpus-level Constraints . Jieyu Zhao, Tianlu Wang, Mark Yatskar, Vicente Ordonez, Kai-Wei Chang.
Empirical Methods on Natural Language Processing. EMNLP 2017.
Copenhagen, Denmark. (Oral Presentation) (**Best Paper Award**)

Obj2Text: Generating Visually Descriptive Language from Object Layouts .
Xuwang Yin, Vicente Ordonez.
Empirical Methods on Natural Language Processing. EMNLP 2017.
Copenhagen, Denmark. (Oral Presentation)

Commonly Uncommon: Semantic Sparsity in Situation Recognition.
Mark Yatskar, Vicente Ordonez, Luke Zettlemoyer, Ali Farhadi.
Int. Conf. on Computer Vision and Pattern Recognition. CVPR 2017. Honolulu, Hawaii.

XNOR-Net: ImageNet Classification Using Binary Convolutional Neural Networks.
Mohammad Rastegari, Vicente Ordonez, Joseph Redmon, Ali Farhadi.
European Conference on Computer Vision. ECCV 2016. Amsterdam, Netherlands.
(Oral presentation)

Stating the Obvious: Extracting Visual Common Sense Knowledge.
Mark Yatskar, Vicente Ordonez, Ali Farhadi. North American Chapter of the Association of Computational Linguistics. NAACL 2016. short. San Diego, CA
(Oral presentation)

Learning to Name Objects. Vicente Ordonez, Wei Liu, Jia Deng, Yejin Choi, Alexander C. Berg, Tamara L. Berg. Communications of the ACM. March 2016. Vol 59, No. 3. CACM 2016. (Research Highlight, Invited Paper)

Large Scale Retrieval and Generation of Image Descriptions.
V. Ordonez, X. Han, P. Kuznetsova, G. Kulkarni, M. Mitchell, K. Yamaguchi, K. Stratos, A. Goyal, J. Dodge, A. Mensch, H. Daume III, A.C. Berg, Y. Choi, T.L. Berg. International Journal of Computer Vision. Special Issue on Big Data. IJCV 2016.
(Journal Paper)

Predicting Entry-Level Categories. Vicente Ordonez, Wei Liu, Jia Deng, Yejin Choi, Alexander C. Berg, Tamara L. Berg. International Journal of Computer Vision - Marr Prize Special Issue. IJCV 2015. (Journal Paper)

ReferitGame: Referring to Objects in Photographs of Natural Scenes.
Sahar Kazemzadeh, Vicente Ordonez, Mark Matten, Tamara L. Berg
Empirical Methods on Natural Language Processing. EMNLP 2014. Doha, Qatar.
(Oral presentation)

Learning High-level Judgments of Urban Perception.
Vicente Ordonez, Tamara L. Berg
European Conference on Computer Vision. ECCV 2014. Zurich, Switzerland.

TreeTalk: Composition and Compression of Trees for Image Descriptions.
Polina Kuznetsova, Vicente Ordonez, Tamara L. Berg, Yejin Choi.
Transactions of the Association of Computational Linguistics. TACL 2014
Presented at EMNLP 2014. Doha, Qatar. (Oral Presentation, Journal Paper)

FurnitureGeek: Understanding Fine-Grained Furniture Attributes from Freely Associated
Text and Tags. Vicente Ordonez, Vignesh Jagadeesh, Wei Di, Anurag Bhardwaj, Robinson
Piramuthu. IEEE Winter Conference on Applications of Computer Vision. WACV 2014.
Steamboat Springs, CO

From Large Scale Image Categorization to Entry Level Categories.
Vicente Ordonez, Jia Deng, Yejin Choi, Alexander C. Berg, Tamara L. Berg.
IEEE International Conference on Computer Vision. ICCV 2013. Sidney, Australia.
(Oral presentation) **(Best Paper Award - Marr Prize)**
(Selected for publication in the Research Highlights of the Communications of the ACM Magazine)

Generalizing Image Captions for Image-Text Parallel Corpus.
Polina Kuznetsova, Vicente Ordonez, Alexander C. Berg, Tamara L. Berg, Yejin Choi.
Association for Computational Linguistics. ACL 2013. short. Sofia, Bulgaria.

Babytalk: Understanding and Generating Image Descriptions.
G. Kulkarni, V. Premraj, V. Ordonez, S. Dhar, S. Li, Y. Choi, A. C. Berg, T. L. Berg.
IEEE Transactions on Pattern Analysis and Machine Intelligence. TPAMI 2013.
(Journal paper)

Collective Generation of Natural Image Descriptions.
Polina Kuznetsova, Vicente Ordonez, Alexander C. Berg, Tamara L. Berg, Yejin Choi.
Association for Computational Linguistics. ACL 2012. Jeju, South Korea.
(Oral presentation)

Im2Text: Describing Images Using 1 Million Captioned Photographs.
Vicente Ordonez, Girish Kulkarni, Tamara L. Berg. Neural Information Processing Systems.
NeurIPS 2011. Granada, Spain. (Spotlight presentation)

High Level Describable Attributes for Predicting Aesthetics and Interestingness.
Sagnik Dhar, Vicente Ordonez, Tamara L. Berg.
IEEE Computer Vision and Pattern Recognition. CVPR 2011. Colorado Springs, CO.

The Ariadne Infrastructure for Managing and Storing Metadata.
S. Ternier, G. Parra, B. Vandeputte, K. Verbert, J. Klerkx, E. Duval, V. Ordonez, X. Ochoa.
Emerging Internet Technologies and Applications for E-learning.
IEEE Internet Computing 2009. (Journal paper)

PATENTS   Techniques for automatic photo album generation. Google – Android.
Vicente Ordonez, Wei Hua, Rodrigo L. Carceroni, Jennifer Gillenwater, Amarnag Subra-
manya. US Patent No. 8983193. (2015).

Correlating image annotations with foreground features. eBay Inc.
Anurag Bhardwaj, Robinson Piramuthu, Vicente Ordonez, Vignesh Jagadeesh, Wei Di.
US Patent Application No. 20150067471. (2015).

EXTERNAL
FUNDING

Total: $1,610,740 ($1,351,015 for our group)

NSF Faculty Early Career Development Program (CAREER) Award.
Teaching Machines to Recognize Complex Visual Concetps in Images through Compositionality. $499,760 total as sole-PI 2021-2025.

NSF Program on Fairness in Artificial Intelligence in Collaboration with Amazon (FAI).
Measuring and Mitigating Societal Biases in Generic Image Representations.
$600,000 total as PI ($340,275 for our group), with Co-PI Baishakhi Ray. 2021-2023.
NSF amount: $375,000 under award #2040961, Amazon amount: $225,000.

Salesforce AI Research Grant 2021
Project: Addressing Biases on Generic Pretrained Models
$50,000 as PI (Unrestricted Gift Funding)

Facebook Research Award 2020
Project: On-Device Efficient Neural Networks
$75,000 as PI (Unrestricted Gift Funding)

eBay Research Gift Funding 2020
Project: Object-specific Image Retrieval
$48,843 as PI (Unrestricted Gift Funding)

Adobe Research Gift Funding
Project: Vision, Language and Multi-lingual Reasoning
$5,000 in 2019 + $30,000 in 2020 + $7,500 in 2021 as PI (Unrestricted Gift Funding)

Google Cloud Credits for Research 2020.
$5,000 Cloud Credits, as PI.

Leidos Gift Funding, 2019.
Project: Component-based Reasoning for Image Recognition
$50,000 as PI.

SAP Gift Funding 2018
$23,000, as PI (Unrestricted Gift Funding)

SAP Research Contract 2018.
Project: Efficient Deep Learning through Compact Representations.
$50,000, as PI.

SAP Research Contract 2018.
Project: Spatial Reasoning for Visually Grounded Dialogs.
$50,000 as PI.

Google Cloud Credits for Research 2019.
$16,500 Cloud Credits, as PI.

Google Faculty Research Award 2017.
Project: Mitigating Biases in Visual Recognition
$49,700 + $10,437 Cloud Credits, as PI (Unrestricted Gift Funding).

IBM Faculty Award 2017.
Project: Interactive Dialog for Image Retrieval and Synthesis
$40,000, as PI (Unrestricted Gift Funding)

INTERNAL
FUNDING

Total: $90,000 ($25,000 for our group).

4-VA Research Program 2019 (co-PI with Jia-Bin Huang – Virginia Tech).
Mitigating Bias for Interpretable Human Activity Understanding. $25,000 ($5,000 for our group).

3 Cavaliers Program 2019 (co-PI with Paul Humphreys and Chip Levy).
Comparing and Contrasting Artificial Neural Networks with Biological Neural Networks for Improved Representation Learning. $60,000 ($20,000 for our group).

SELECTED
MEDIA
COVERAGE /
PRESS
RELEASES

How NSF and Amazon Are Collectively Tackling Artificial Intelligence-Based Bias. NextGov. 02/18/2021. `https://www.nextgov.com/emerging-tech/2021/02/how-nsf-and-amazon-are-collectively-tackling-artificial-intelligence-based-bias/172126/`

NSF Makes 11 Research Project Grants Under Amazon-Backed Fairness in AI Program. Tech Register UK. 02/12/2021. `https://www.techregister.co.uk/nsf-makes-11-research-project-grants-under-amazon-backed-fairness-in-ai-program/`

Biometrics experts call for creation of FDA-style government body to regulate facial recognition. Biometric Update. 06/08/2020. `https://www.biometricupdate.com/202006/biometrics-experts-call-for-creation-of-fda-style-government-body-to-regulate-facial-recognition`

Researchers call for new federal authority to regulate facial recognition tech. TechXplore. 06/05/2020. `https://techxplore.com/news/2020-06-federal-authority-facial-recognition-tech.html`

Racist facial recognition technology is being used by police at anti-racism protests. Verdict UK (VE). 06/05/2020. `https://www.verdict.co.uk/facial-recognition-technology-racist-police-protests`

Investigating the Best Features for Predicting a Movie's Genre and Estimated Budget. TechXplore. 30/08/2019. `https://techxplore.com/news/2019-08-features-movie-genre.html`

La equidad de género en los momentos de la IA. Forbes México. 01/10/2019. `https://www.forbes.com.mx/la-equidad-de-genero-en-los-momentos-de-la-ia/`

Researchers Combat Gender and Racial Bias in Artificial Intelligence. Bloomberg News. 12/04/2017. `https://www.bloomberg.com/news/articles/2017-12-04/researchers-combat-gender-and-racial-bias-in-artificial-intelligence`

Home robots will turn into crude sexists, experts warn. The Times of London. 08/23/2017. `https://www.thetimes.co.uk/article/home-robots-will-turn-into-crude-sexists-experts-warn-gnmj09rgq`

Machines Taught by Photos Learn a Sexist View of Women. WIRED. 08/21/2017. `https://www.wired.com/story/machines-taught-by-photos-learn-a-sexist-view-of-women/`

Beyond Silicon: Squeezing More Out of Chips. The New York Times. 10/30/2016. `http://www.nytimes.com/2016/10/31/technology/beyond-silicon-squeezing-more-out-of-chips.html`

Artificial Intelligence at Your Fingertips. University of Washington CSE News. 10/30/2016. `https://news.cs.washington.edu/2016/10/31/uw-cse-and-ai2-in-the-new-york-times-artificial-intelligence-at-your-fingertips/`

Invited Speaker: CVPR Workshop on Responsible Computer Vision (RCV)　　　June 2021
Title: Toward Compositional Models that Mitigate Bias and Responsible Model Deployment

Invited Speaker: Compositional Representations for Visual Recognition
University of Rochester, Computer Science Vision Seminar　　　April 2021
Arizona State University, Vision and Language Seminar　　　February 2021
Carnegie Mellon University, VASC Seminar　　　September 2020

Invited Speaker: Measuring and Mitigating Biases in Computer Vision and Beyond
University of Florida, Dept. of Computer & Information Science & Engineering　March 2021
Rice University, Department of Computer Science Colloquium　　　October 2020

Invited Speaker: Compositionality, Robustness, and Flexibility in Vision and Language
Amazon Alexa AI, Amazon Inc　　　April 2021
Samsung Research, Cambridge, UK　　　October 2020

Invited Speaker: Visual recognition on the edge through platform-aware model optimization
Facebook AI Systems Faculty Summit　　　October 2020

Invited Speaker: Reunión Internacional de Inteligencia Artificial y sus Aplicaciones (RIIAA)
Intl. Conference on Artificial Intelligence and Applications.　　　August 2020

Invited Speaker: Fair and Compositional Representations for Vision and Language
ICCV Workshop on Linguistics Meets Image and Video Retrieval.　　　October 2019
Seoul, South Korea.

Invited Speaker: Building Compositional, Interpretable and Robust Visual Recognition
Georgetown University - Dept. of Computer Science. Washington DC　　　October 2019

Invited Speaker: Human-guided Visual Recognition with Language and Interaction
SAP Leonardo Machine Learning Research Retreat. Berlin, Germany　　　October 2019

Invited Speaker: Building Fair and Robust Representations for Vision and Language
Oak Ridge National Laboratory AI Workshop. Oak Ridge, TN.　　　September 2019

Seminar Speaker: Building Fair Representations for Images and Text
　University of Maryland College-Park, CLIP Seminar Series　　　August 2019
　Princeton University, Computer Science Dept. Fairness Seminar　　　April 2019

Invited Speaker: Building the Next Generation of Representations for Vision and Language
Adobe Research, San José, California　　　March 2019

Invited Speaker: Building the Next Generation of Representations for Vision and Language
Escuela Superior Politécnica del Litoral, Guayaquil, Ecuador　　　January 2019

Invited Speaker: Challenges in Vision and Language Research　　　September 2018
Workshop on Shortcomings in Vision and Language (SiVL)
European Conference on Computer Vision (ECCV), Munich, Germany

Invited Speaker: Feedback Propagation in Deep Neural Networks　　　September 2018
SAP Leonardo Machine Learning Research Retreat. Munich, Germany

Invited Speaker: Overcoming the Next Challenges in Vision and Language Research

| Microsoft Research Montreal. Montréal, Canada | August 2018 |
| McGill University, Center for Intelligent Machines, Montréal, Canada | August 2018 |

Mini-Plenary Speaker: Reducing Gender Bias in Machine Learning Systems   May 2018
National Center for Women & IT, NCWIT Summit. Grapevine, TX

Invited Speaker: Understanding the Visual World through Language   April 2018
Applied Machine Learning Conference. Charlottesville, VA
Tom Tom Founders Festival

Keynote Speaker: Integrating Vision and Language through Feedback-based Neural Inference
Conference on Integrating Vision and Language Processing. Tartu, Estonia   March 2018
European Network on Integrating Vision and Language (iV&L Net)

Invited Speaker, Investigación en Reconocimiento Visual Artificial

| Universidad Técnica de Machala (UTM), Machala, Ecuador. | May 2017 |
| Universidad de Cuenca (UC), Cuenca, Ecuador. | May 2017 |

Invited Speaker, Language and Perceptual Categorization in Computer Vision.

Toyota Technological Institute at Chicago TTI-C	April 2015
Allen Institute for Artificial Intelligence AI2, Seattle, Washington	March 2015
California Institute of Technology (Caltech), Pasadena, California	March 2015
Carnegie Mellon University, The Robotics Institute VASC Seminar Series	February 2015
Disney Research Pittsburgh, The Walt Disney Company.	January 2015
Stanford University, Department of Computer Science, Vision Group.	December 2014

Seminar Speaker, Integrating Vision and Language.

University of Virginia, Computer Science Dept. Charlottesville, Virginia	March 2015
Virginia Tech, Computer Science Dept., Blacksburg, Virginia	March 2015
Drexel University, Computer Science Dept. Philadelphia, Pennsylvania	February 2015

Invited Presentation, Learning High-level Judgments of Urban Perception.   September 2014
ECCV 2014 Workshop on Storytelling with Images and Videos. Zurich
ECCV 2014 Workshop on Human-Machine Communication for Visual Recognition. Zurich

Invited Speaker, Understanding Image Descriptions in the Wild.   July 2013
Yahoo! Labs, Sunnyvale, California.

Invited Student Speaker, Data-driven Generation of Image Descriptions.   June 2013
NAACL Workshop on Vision and Language (WVL) 2013. Atlanta, GA

RESEARCH GROUP

Ziyan Yang, *PhD Student*	Fall 2017 - present
Paola Cascante-Bonilla, *PhD Student*	Fall 2018 - present
Aman Shrivastava, *Research Assistant*	Fall 2020 - present
Jaspreet Ranjit, *MS Student*	Spring 2021 - present
Letao Wang, *Undergrad Student*	Spring 2021

RESEARCH GROUP
ALUMNI

Tianlu Wang, *PhD (University of Virginia)*
   PhD Thesis: *Measuring and Mitigating Biases in Vision and Language Models.*   June 2021
   Next: Research Scientist at Facebook AI Research – Menlo Park, CA
   Academic homepage: `http://www.cs.virginia.edu/~tw8cb/`

Fuwen Tan, *PhD (University of Virginia)*
   PhD Thesis: *Learning Local Representations of Images and Text*   April 2021
   Next: Researcher at Samsung AI Centre – Cambridge, UK
   Academic homepage: `https://fwtan.github.io/`

Shanmin Pang, *Visiting Scholar – Asst. Prof. at Xi'an Jiaotong University*   Fall 2017 - Fall 2018
Leticia Pinto-Alva, *Visiting Student (next PhD Student at USC)*   Fall 2019 - Fall 2020

Lindsey Shavers, *Ugrad/MS Student*   Fall 2018, Fall 2019 - Spring 2020
Fuxiao Liu, *MS Student*   Fall 2019 - Fall 2020
Xuwang Yin, *Research Assistant (next PhD at UVA CpE program)*   Fall 2016 - Summer 2018
Fengyang Zhang, *MS - Independent Studies (next at Facebook)*   Spring 2018
Abhimanyu Banerjee, *MS - Independent Studies (next at Cvent Inc)*   Spring 2017 - Spring 2018
Anudeep Konda, *MS - Thesis (next at VoxelCloud)*   Fall 2017 - Spring 2018
KS Sivaraman, *MS - Independent Studies (next at Microsoft)*   Spring 2017 - Fall 2017

Nikash Sethi, *Undergrad Student*   Spring 2021
Katherine Weinschenk, *Undergrad Student*   Fall 2020 - Spring 2021
Jeffrey Tan, *Undergrad Student*   Summer 2018 - Fall 2020
Brandon Peck, *Undergrad Student - (next at Microsoft)*   Summer 2019
MengJia Luo, *Undergrad Student - (next at Microsoft)*   Fall 2018 - Spring 2019
Arun Kannan, *Undergrad Capstone Project - (next UVA MS in Math)*   Fall 2017 - Spring 2018
Vijay Edupuganti, *Undergrad Capstone Project (next at OpenDoor Inc)*   Fall 2017 - Spring 2018
Shijia Wang, *Undergrad Student - (next Georgia Tech MS)*   Summer 2017 - Fall 2017
Nova Zhang, *Undergrad Student*   Spring 2017
Divya Bhaskhara, *Undergrad Capstone Project - (next Johns Hopkins MS)*   Fall 2016

Jonathan Rodriguez, *CRA-DREU Visting Student – Tufts University*   Summer 2018
Rosangel Garcia, *CRA-DREU Visting Student – Le Moyne College*   Summers 2017, 2018
Ian K. Torres, *CRA-DREU Visting Student – UMass Amherst*   Summer 2017

TEACHING
EXPERIENCE

Instructor.

CS4501: Introduction to Computer Vision. University of Virginia.
  Course website: http://vicenteordonez.com/vision   Spring 2021
  Course website: http://vicenteordonez.com/vision/2019   Fall 2019
  Course website: http://vicenteordonez.com/vision/2018   Spring 2018

CS6501: Vision and Language. University of Virginia.
  Course website: https://www.vicenteordonez.com/vislang.   Fall 2020
  Course website: http://www.cs.virginia.edu/~vicente/vislang   Spring 2017

CS6501: Deep Learning for Visual Recognition. University of Virginia.
  Course website: http://vicenteordonez.com/deeplearning   Spring 2020
  Course website: http://vicenteordonez.com/deeplearning/2019   Spring 2019

CS6501: Computational Visual Recognition. University of Virginia.
  Course website: http://www.cs.virginia.edu/~vicente/recognition   Fall 2017
  Course website: http://www.cs.virginia.edu/~vicente/recognition/2016   Fall 2016

Teaching Assistant.
Foundations of Computer Science. Stony Brook University.   2009-2010
Object Oriented Programming. Escuela Superior Politécnica del Litoral, Ecuador.   2005
Introduction to Programming. Escuela Superior Politécnica del Litoral, Ecuador.   2004
Physics for Engineering. Escuela Superior Politécnica del Litoral, Ecuador.   2004

I have also delivered guest lectures for the following courses:
Vision and Language. Computer Science – University of British Columbia (Spring 2021)
Big Data and Marketing Analytics. McIntire School of Commerce – UVA (Fall 2019)
Introduction to Computer Vision. University of Virginia (Spring 2017)
Language and Vision. University of North Carolina at Chapel Hill (Spring 2015)
Computer Vision. University of North Carolina at Chapel Hill (Fall 2014)

Artificial Intelligence. University of North Carolina at Chapel Hill (Spring 2014)
Advanced Multimedia. Stony Brook University (Spring 2013)
Computational Photography. Stony Brook University (Spring 2013)

OTHER
ACTIVITIES

Organizing Service.
Tutorials Chair / Member of Organizing Committee for the main conference:
- International Conference on Computer Vision (ICCV) 2021 – Montréal.

Member of Proposing Team:
- LatinX in Computer Vision Workshop at CVPR 2021.

Member of Organizing Committee:
- Toward Human-level Video Story Understanding Workshop (VTT) at ECCV 2020.

Tutorial on Bias and Fairness in Natural Language Processing, at the conference:
- Empirical Methods in Natural Language Processing (EMNLP) 2019 – Hong Kong.

Member of Organizing Team of Panel on Bias in Machine Learning at the
- ACM Richard Tapia Celebration of Diversity in Computing 2018.

BigVision Workshop on Large Scale Visual Recognition and Retrieval at the
- Conference on Computer Vision and Pattern Recognition (CVPR) 2016.

Co-Director with Prof. Paul Humphreys (Dept. of Philosophy):
- University of Virginia's Human and Machine Intelligence Seminar, 2017 - Present.

University of Virginia's Computer Vision Seminar, 2016 - Present (with my PhD students)
Stony Brook University Computer Science Graduate Research Conference 2010

Area Chair / Program Committee / Meta-Reviewer.
British Machine Vision Conference (BMVC), 2021.
Conf. on Computer Vision and Pattern Recognition (CVPR) 2020, 2021, 2022.
European Conference on Computer Vision (ECCV) 2020.
Annual Meeting of the Association for Computational Linguistics (ACL) 2020.
International Conference on Computer Vision (ICCV) 2019.
North American Chapter of the Association for Computational Linguistics (NAACL) 2019.
North American Chapter of the Association for Computational Linguistics (NAACL) 2018.

Associate Guest Editor.
Frontiers in Computer Vision, Special Issue on Video Story Understanding, 2021.

Discussion Panels.
Escape Velocity 2019 - Ethics in AI Panel. Washington DC's National Harbor
Science of Deep Learning Workshop at ICLR 2021 (as moderator)

Workshop Program Committee / Reviewer.
NeurIPS Black in AI Workshop 2018, 2019, 2020
ACM Richard Tapia Celebration of Diversity in Computing: Panels and Workshops, 2019
NAACL Workshop on New Forms of Generalization in Deep Learning 2018
ICCV Workshop on Closing the Loop Between Vision and Language 2015, 2017
ICCV Workshop on Web-scale Vision and Social Media 2015, 2017
NeurIPS Workshop on Efficient Methods for Deep Neural Networks 2016
ECCV Workshop on Web-scale Vision and Social Media 2016
EMNLP Workshop on Vision and Language 2015
ECCV Workshop on Storytelling with Images and Videos - *VisStory* 2014
ECCV Workshop on Human-Machine Communication for Visual Recognition 2014

Member of Expert Review Panel for Research Proposals.
US National Science Foundation (NSF), 2018, 2019, 2021
Swiss National Science Foundation (SNSF), 2020
Flanders Research Foundation (FWO) [Belgium's Funding Agency], 2017

Reviewer / Program Committee
Neural Information Processing Systems (NeurIPS) 2016, 2020, 2021
Artificial Intelligence Journal (AIJ) 2021
Winter Conference on Applications of Computer Vision (WACV) 2021
AAAI Conference on Artificial Intelligence (AAAI-21)
IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI) 2014 - 2021
International Conference on Machine Learning (ICML) 2020 (as "Expert Reviewer").
Journal of Artificial Intelligence Research (JAIR) 2020.
Empirical Methods in Natural Language Processing (EMNLP) 2015, 2017, 2018, 2020
ACM Richard Tapia Celebration for Diversity in Computing – Panels and Workshops, 2019
Intl. Conference on Computer Vision and Pattern Recognition (CVPR) 2015 - 2019
European Conference on Computer Vision (ECCV) 2016, 2018
Association for Computational Linguistics (ACL) 2014, 2016 - 2018
International Conference on Computer Vision (ICCV) 2015, 2017
International Joint Conference in Artificial Intelligence (IJCAI) 2016
International Journal of Computer Vision (IJCV) 2014 - 2016
Asian Conference on Computer Vision (ACCV) 2016
Int'l Conference on Computer Graphics and Interactive Techniques (SIGGRAPH) 2016
North American Chapter of the Association for Computational Linguistics (NAACL) 2016
IEEE Transactions on Multimedia (TM) 2013, 2016.
Elsevier Computer Vision and Image Understanding (CVIU) 2014, 2015
Elsevier Information Processing Letters (IPL) 2014
IEEE Transactions on Neural Networks and Learning Systems (TNNLS) 2014
IEEE Transactions on Image Processing (TIP) 2013.
ACM Multimedia (MM) 2010. International Multimedia Conference.