

CV

Javier Argota Sánchez-Vaquerizo

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Javier is an Architect (School of Architecture-Polytechnic University of Madrid, 2014), M.Sc in Computational Design (Carnegie Mellon University, 2018), and currently, a doctorate and researcher at ETH Zürich within the Professorship of Computational Social Science directed by Prof. Dr Dirk Helbing, working on the ERC funded project "Co-Evolving City Life" (CoCi) and Singapore's FCL Semantic Urban Elements.

Javier's research focuses on new ways of dealing with the complexity of spatial planning and design in connection with people's behaviour and experience of space, and with how decision-making is accomplished in cities. Hence, his projects articulate architecture and planning within the use of AI, machine learning, data, and complexity science, to better understand how our interventions affect people's lives in cities and to provide informed and comprehensive decision-making in our built environment.

Javier has been a Fulbright scholar, he has been awarded the Archimedes prize as best predoctoral research (Spanish National Research Council-CSIC, 2015), and as an architect for his projects (1st prize "Lounge COAM", 2nd prize "Museo del Capricho"). His work as a scholar (ETSAM-UPM, Carnegie Mellon, Georgia Institute of Technology), as an architect (jard.us), and as an entrepreneur has been published in media and top-tier journals (Journal of Architecture Education, Communications in Computer and Information Science, Arquitectura), has been presented in international conferences and exhibited in Spain, Italy, France, Germany, the Netherlands, Sweden, South Korea, and the US.

CURRENT POSITION

OCT 2020 (...) **Doctoral Candidate. Eidgenössische Technische Hochschule Zürich (ETH Zürich).** Zurich (Switzerland)
Department of Humanities, Social and Political Sciences (D-GESS)
Professorship of Computational Social Science (COSS).
Advisor: Prof. Dr. Dirk Helbing.

EDUCATION

AUG 2016 **Carnegie Mellon University.** Pittsburgh, PA (USA).
MAY 2018 **Master of Science in Computational Design.** Sponsored by the **Fulbright** Program.
Concentration on Data Science, Computer Vision, Machine Learning, and algorithmic thinking.
Thesis "What You See Is What You Get. Data-Informed Workflow in Design for Architecture and Urbanism" Advisor: Daniel Cardoso Llach, Ph.D. Co-advisors: Stefan Gruber, and Molly Wright Steenson, Ph.D.

SEP 2005 **School of Architecture of Madrid,** Polytechnic University of Madrid (Spain)
NOV 2014 **Architect (MArch),** graduated with Highest Honors.
Thesis dissertation project: "Hypermobile Commuter City", on the utilization of Big Data and algorithms as a source for urban interventions and urban planning in large transportation infrastructures in Madrid.
Advisor: Andrés Cánovas Alcaraz, Ph.D.

AUG 2008 **College of Architecture of the Illinois Institute of Technology** in Chicago, IL. (USA).
JUN 2009 International visiting student.

PUBLICATIONS

REFEREED JOURNAL ARTICLES

MAY 2022 Mahajan, S., Hausladen, C. I., Argota Sánchez-Vaquerizo, J., Korecki, M., & Helbing, D. **"Participatory resilience: Surviving, recovering and improving together"**. Sustainable Cities and Society, 83, 103942.
<https://doi.org/10.1016/j.scs.2022.103942>

DEC 2021 Argota Sánchez-Vaquerizo, J. **"Getting Real: The Challenge of Building and Validating a Large-Scale Digital Twin of Barcelona's Traffic with Empirical Data"**. ISPRS International Journal of Geo-Information, 11(1), 24.
<https://doi.org/10.3390/ijgi11010024>

MAR 2018 Delso Gutiérrez, R., Argota Sánchez-Vaquerizo, J., **"Autonomy and Automation in the Architectural Project: the Algorithm of the Hypermobile Commuters City"**. Journal of Architectural Education, 72(1), pp.120-134. Available on: <https://www.tandfonline.com/doi/full/10.1080/10464883.2018.1410668>

JUN 2017 Delso Gutiérrez, R., Argota Sánchez-Vaquerizo, J., **"Watching Puerta del Sol. On Protest Space and its Temporal Conflicts"**, in Jorinde Seijdel (ed.) "Open!", Amsterdam (the Netherlands).
Available on: <http://onlineopen.org/watching-puerta-del-sol-on-protest-space-and-its-temporal-conflicts>

APR 2012 Argota Sánchez-Vaquerizo, J., Busca Izquierdo, I., Delso Gutiérrez, R., Gómez Martín, B., and de Miguel, M., **"C.O.N.T.A.G.I.O"** ("Contagion"), in "HipoTesis Serie Alfabética" (2012), issue 13, p. 2. ISSN-e 1989-8576. Available on: <https://bit.ly/3c69GSx>

NON-REFEREED JOURNAL ARTICLES

APR 2018 Angelini Malatesta, B., Argota Sánchez-Vaquerizo, J., Delso Gutiérrez, R., Cansino Rubio, D., **"Concursos: Museo del Palacio El Capricho: Volaverunt. Segundo premio"** ("Competitions. El Capricho Palace Museum: Volaverunt. Second Prize"). Revista Arquitectura issue 375 April 2018, Section Labs. Pp. 42, 54-55. ISSN 0004-2706. Legal Deposit 617-1958. Available on: <https://bit.ly/3gz8Dhk>

FEB 2015 Argota Sánchez-Vaquerizo, J., Delso Gutiérrez, R. **"Hazlo tú-yo"**. Selected cover and back cover designs. Competition "Hazlo tú". Magazine Yorokobu, #59. Inner booklet, pp. 40-41.
Available on: <https://bit.ly/2THMZhl>

REFEREED CONFERENCE PROCEEDINGS

- JUL 2019 Cardoso Llach D., Argota Sánchez-Vaquerizo J., "An Ecology of Conflicts", in: Lee JH. (ed.) Computer-Aided Architectural Design. "Hello, Culture". CAAD Futures 2019. Communications in Computer and Information Science, vol 1028. Springer, Singapore.
- JUL 2019 Argota Sánchez-Vaquerizo J., Cardoso Llach D. (2019), "The Social Life of Small Urban Spaces 2.0. In: Lee JH. (ed.) Computer-Aided Architectural Design. "Hello, Culture". CAAD Futures 2019. Communications in Computer and Information Science, vol 1028. Springer, Singapore

BOOKS

- JUN 2012 Argota Sánchez-Vaquerizo, J., Busca Izquierdo, I., Delso Gutiérrez, R., Gómez Martín, B., and de Miguel, ML. (100x10), **"100X10 Centro de Tecnificación Proyectual"**, Madrid (Spain): Marea. ISBN: 978-84-940020-7-6
- OCT 2011 Argota Sánchez Vaquerizo, J., Arriero, A. (eds.), **"STOY Jurbaning: Sustainable toy"**. Madrid (Spain): Marea. Research group Hypermedia. ISBN: 978-84-615-4104-1.
- JUN 2011 Especulaciones group. **"Propedeutic experimental workshop."** Ed. Marea. ETSAM 2010-2011. Madrid. ISBN: 978-84-9400020-8-3.
- JUN 2010 Argota Sánchez-Vaquerizo, J. (ed.), Courses DAI 1 & 2 School of Architecture of Madrid, **"En acción 1.10 Jugando en la ciudad"**. Madrid (Spain): Marea. ISBN: 978-84-92641-35-2.

BOOKS CHAPTERS

- MAY 2018 Argota Sánchez-Vaquerizo, Javier, **"HyperMobile Commuter City"**, in Atxu Amann, Spanish Ministry of Public Works, Arquia Foundation, (eds.) "'becoming'. Catálogo del Pabellón español Biennale Architettura 2018. 16ª Mostra Internazionale di Architettura. Partecipazioni Nazionali" (Official Catalogue of the Spanish Pavilion at the Venice Biennale Architettura 2018). Barcelona (Spain), pp. 72-75, illus. ISBN: 978-84-09-01748-5. Available on: https://issuu.com/publicacionesaacid/docs/catalogo_becoming_en_pags_sueltas_b
- MAY 2018 Argota Sánchez-Vaquerizo, J., Delso Gutiérrez, R., **"Open Urban Television"**, in Atxu Amann, Spanish Ministry of Public Works, Arquia Foundation, (eds.) "'becoming'. Catálogo del Pabellón español Biennale Architettura 2018. 16ª Mostra Internazionale di Architettura. Partecipazioni Nazionali" (Official Catalogue of the Spanish Pavilion at the Venice Biennale Architettura 2018). Barcelona (Spain), pp. 57, illus. ISBN: 978-84-09-01748-5. Available on: https://issuu.com/publicacionesaacid/docs/catalogo_becoming_en_pags_sueltas_b
- JAN 2017 Argota Sánchez-Vaquerizo, J., **"Hypermobile Commuter City: proyecto basado en datos"** ("HyperMobile Commuter City: a data-driven Project") in Espejel Alonso, C., Cánovas Alcaraz, A, Blanco Herrero, A. (eds.), "Parlamentos y Datos. Unidad Espejel, 2015/2016. P3+P4" Madrid (Spain): Marea Libros, pp. 108-118. ISBN 978-84-946306-1-3. Legal deposit: M-39467-2016
- JAN 2017 Argota Sánchez-Vaquerizo, J., Delso Gutiérrez, R. and Gómez Saiz, A., **"Open Urban Television"**, in Espejel Alonso, C., Cánovas Alcaraz, A, Blanco Herrero, A. (eds.), "Parlamentos y Datos. Unidad Espejel, 2015/2016. P3+P4" Madrid (Spain): Marea Libros, pp. 32-41. ISBN 978-84-946306-1-3. Legal deposit: M-39467-2016
- OCT 2016 Argota Sánchez-Vaquerizo, J., Delso Gutiérrez, R., **"Computational cities: Parametric urban and architectonic design through the use of algorithms to manage big data"**, in Boni, Anna Lisa et al (eds.), "Making cities. Visions for an urban future". Brussels (Belgium): Eurocities, pp. 118 and Annex 1-26. Available on: <http://nws.eurocities.eu/MediaShell/GetMediaBytes?mediaReference=14375>
- MAY 2016 Argota Sánchez-Vaquerizo, J., Delso Gutiérrez, R. and Gómez Saiz, A., **"OUT – Open Urban Television"** in Pop, S., Toft, T. and Calvillo, N., "What Urban Media Art Can Do – Why When Where & How". Stuttgart (Germany): Avedition GmbH. Pp. 112-115. ISBN 978-3899862553
- JUN 2012 Argota Sánchez-Vaquerizo, J., Busca Izquierdo, I., Delso Gutiérrez, R., Gómez Martín, B., and de Miguel, M. (100x10) and Especulaciones course group, **"I Wish"**, in "Eme3_2012 International Architecture Festival Catalogue. Share-it". Barcelona (Spain), pp. 46-49. Available on: https://issuu.com/eme3/docs/eme3_2012_catalogo
- JUN 2012 STOY research group, Especulaciones course group, and DAI course group, **"Cúbreme Latina"**, in "Eme3_2012 International Architecture Festival Catalogue. Share-it". Barcelona (Spain), pp. 232-235. Available on: https://issuu.com/eme3/docs/eme3_2012_catalogo
- SEP 2009 Del Castillo, S., Castiñeira, E., Argota Sánchez-Vaquerizo, J. **"Programación de Ecosistemas Virtuales como laboratorio de negociación: ProtozOO"** (Programming for Virtual Ecosystems as a negotiation lab), in Ribot, Almudena; Borrego, Ignacio; García-Germán, Javier; García-Setién, Jacobo (eds.), "Colaboratorio ETSAM 2009". Madrid (Spain): Marea. ISBN: 978-84-92641-37-6

HONORS AND AWARDS

- MAY 2020 **Santander Scholarship for MIT Leading Digital Transformation.** Participation in the Massachusetts Institute of Technology Professional Education online programs of Leading Digital Transformation and Machine Learning: Leveraging Data.
- SEP 2019 **Innovation Award 'Connecting for Good' for UDE (Urban Data Eye).** Innovation Awards by Vodafone Foundation Spain for technology startups with positive social impact. With Rodrigo Delso, Iago Romero, and Alberto Gómez.

- MAY 2019 **First prize as best startup company for UDE (Urban Data Eye).**
Proptech Challenge organized by Merlin Properties on innovative solutions for real estate.
 With Rodrigo Delso, Iago Romero, and Alberto Gómez.
- MAR 2019 **Startup Acceleration** program, as a co-founder of Urban Data Eye
 MAY 2019 **Arcadis City of 2030, powered by TechStars.** Amsterdam (the Netherlands).
- FEB 2019 **First prize as best startup company for UDE (Urban Data Eye).**
Proptech Challenge organized by CBRE Spain on innovative solutions for real estate.
 With Rodrigo Delso, and Iago Romero.
- JAN 2019 **Grant: SME Instrument** phase I (Small and Medium-sized Enterprises Instrument) for **UDE (Urban Data Eye),**
 DEC 2019 **Horizon 2020 Program, European Commission.**
 Project: "Artificial Intelligence and Computer Vision for real-time diagnosis of public spaces - UDE"
 With Rodrigo Delso, and Iago Romero.
- DEC 2018 **First prize as the best social entrepreneurial** project for **UDE (Urban Data Eye).**
 MAD+ Awards on social innovation by the City Council of Madrid (Spain).
 With Rodrigo Delso, and Iago Romero.
- NOV 2018 Corporative startup acceleration program, as a co-founder of Urban Data Eye
 MAY 2019 **Bizlab Madrid, by Airbus.** Madrid (Spain)
- AUG 2018 **Research grant** for the development of the project "Understanding Public Space Use in Market Square".
 AUG 2019 Awarded by the Pittsburgh Supercomputing Center for providing high-performance computing resources.
- JUL 2018 **Research award** for the development of the project "Understanding Public Space Use in Market Square".
 DEC 2018 Granted by the Metro 21 Institute for Smart Cities at Carnegie Mellon University, Pittsburgh, PA (USA).
 Sponsored by Heinz Endowments for the City of Pittsburgh and Pittsburgh Downtown Partnership.
- JAN 2018 **Norman Foster Foundation Educational Scholarship.**
 Workshop **Digital X** on **Future cities** curated by **Nicholas Negroponte.**
 Norman Foster Foundation, Madrid (Spain)
- DEC 2017 **Second prize as best startup company for UDE (Urban Data Eye).**
Actua UPM 14 (14th Polytechnic University of Madrid competition for entrepreneurship)
 With Rodrigo Delso, Iago Romero, and Alberto Gómez.
- JUL 2017 **Fellowship of Entrepreneurship and Innovation in Architecture 2017** for **UDE (Urban Data Eye).**
 Granted by **Arquia Foundation** (Spain).
 With Rodrigo Delso, Iago Romero, and Alberto Gómez.
- APR 2017 **Diploma** for **UDE (Urban Data Eye)** project.
 First phase of **Actua UPM 14** (14th Polytechnic University of Madrid competition for entrepreneurship)
 With Rodrigo Delso, Alberto Gómez and Iago Romero.
- SEP 2016 **First prize** in the **Architecture Schindler Award**, local phase for the School of Architecture of Madrid (Spain)
 Project "HyperMobile Commuter City".
- AUG 2016 **Fulbright** Scholar at Carnegie Mellon University, Pittsburgh, PA.
 MAY 2018 Sponsored by the Department of State of the United States of America and the Community of Madrid.
- JUL 2016 **Second prize** in the **architecture competition** for the new "Museum of the 'Capricho' Palace".
 Architects Association of Madrid (COAM) and the Madrid City Council.
 Proposal "Volavérunt".
 Team: Bernardo Angelini, David Casino, Rodrigo Delso, Román Sost, and César Cañadas.
- JUL 2016 **Secondary award** (accessit) in the **design competition** "Bancos para compartir" (Benches to share).
 Architects Association of Madrid (COAM) and the Madrid City Council for designing innovative prototypes for sitting
 as part of the new catalog of urban furniture for the city of Madrid.
 Proposal: "A-park-and".
 Team: Rodrigo Delso, Román Sost, and César Cañadas.
- MAR 2016 **First prize** "ex aequo" in the ideas **competition** "Lounge COAM".
 Architects Association of Madrid (COAM).
 Project: "Orange is the new black"
 Team: Rodrigo Delso, César Cañadas, and Roman Sost.
- NOV 2015 **First Prize** in the area "Engineering and Architecture" at the **XIV National Scientific Prize Arquímedes**, Congress for
 young researchers
 "Hypermobile Commuter City: Urban and Architectural Design programmed through algorithms based on Big Data
 Management".
Spanish National Research Council, Madrid (**CSIC**), Ministry of Education, Culture and Sport, Spain.
- NOV 2014 **Honors in the Final Dissertation Project**
 "HyperMobile Commuter City"
 School of Architecture of Madrid, Polytechnic University of Madrid (Spain).
- JUN 2012 3rd prize in the 5th edition of the I+D+Art_E4 Design Awards
 Project: "Your Artbox"
 Team: Joaquín Rodríguez, and Rodrigo Delso.

- JUN 2012 Special mention in the Schindler Award 2011/12 for mobility/accessibility solutions
Project: "Microciudad del Tiempo" ("Microcity of Time").
With Rodrigo Delso.
- JUN 2011 Honorable mention in the "I+D+Art_E4 Award. Designing a bar"
Proposal: "Fluorízate"
With Rodrigo Delso.
- OCT 2010 **Erasmus+ Fellowship, European Commission.**
MAR 2011 **Lacaton et Vassal Architectes** in Paris. (France).
- JUN 2010 Ex-aequo mention in the Award on "New uses of architectural concrete. In & Out"
Proposal "Módulo Thongstone"
With Rodrigo Delso.
- JUN 2010 **First prize** in the **architecture competition** "Gran Vía 100 años"
Architects Association of Madrid (COAM) and the Madrid City Council (Spain).
Proposal "365 otras Gran Vías Posibles"
Team: Atxu Amann, and Rodrigo Delso.
- OCT 2009 Collaboration fellowship. Spanish Ministry of Education
MAY 2010 Teacher Assistant for the core subjects Drawing, Analysis & Ideation 1 y 2 lectured by Atxu Amann, Ph.D.
School of Architecture, Polytechnic University of Madrid.
- MAY 2009 **Dean's List** of the College of Architecture at the **Illinois Institute of Technology** in Chicago (USA).
- AUG 2008 **Bancaja fellowship** for visiting students in North America.
APR 2009
- AUG 2008 **International visitor Exchange student fellowship** in the Illinois Institute of Technology of Chicago (USA).
APR 2009
- AUG 2008 **Excellence Academic Performance fellowship** by the Community of Madrid (Spain).
- MAY 2005 General Honors for the High School records at the I.E.S Máximo Trueba in Boadilla del Monte, Madrid (Spain).
- JUN 2003 **First prize** by ENRESA (Spanish Public company in charge of the management of radioactive waste) on the Social impact of high and medium activity radioactive waste.

PROFESSIONAL EXPERIENCE

- JUN 2018 **Co-founder, general manager UDE (Urban Data Eye)**
MAR 2020 Co-founders team: Rodrigo Delso, Alberto Gómez, and Iago Romero.
Startup on public spaces diagnosis from the utilization of computer vision and machine learning algorithms.
Main tasks developed:
- Operations and business daily management, accounting.
 - Implementations development.
 - Projects management (Madrid, Pittsburgh, Amsterdam), A/B testing.
 - Technical roadmap design (for Big Data and data science, cloud integration), Data analysis.
 - Hiring process.
 - Team management: 1 machine learning engineer, 1 backend engineer, and 1 junior developer.
- JUN 2018 **Research Associate** at the School of Architecture at **Carnegie Mellon University**. Pittsburgh, PA (USA).
DEC 2018 **Principal Investigator** for the project: "Understanding Public Space Use in Market Square" on using new metrics about the utilization and design of built environments from computer vision and machine learning techniques.
Project for the City of Pittsburgh and Pittsburgh Downtown Partnership and funded by Heinz Endowments through Metro 21, Carnegie Mellon University's Institute for smart cities. Main tasks developed:
- Coordination between policymaking and city stakeholders with the academic team
 - Financial and work phasing management.
 - On-site Implementation.
 - Data processing.
 - Qualitative and quantitative analysis.
 - Dissemination of results.
- MAY 2017 **Research intern** at the **Georgia Institute of Technology** Atlanta, GA (USA).
JUL 2017 Project: "Cycle Atlanta: Seeing like a bike" on the use of sensor fusion and machine learning techniques for the assessment and improvement of the biking infrastructure of the city of Atlanta.
Directed by Christopher Le Dantec, Ph.D. Team: Myeong Lee, Noel Mannariat, and Erica Pantoja.
Data Science for Social Good program funded by the National Science Foundation.
Main tasks developed:
- Design and testing of hardware (prototypes and sensor boxes).
 - Data collection, preprocessing, and visualization.
 - Documentation

- FEB 2017
MAY 2018 **Research Assistant** at the School of Architecture at **Carnegie Mellon University**. Pittsburgh, PA (USA).
Project "Tracing Design Ecologies" directed by Daniel Cardoso Llach. on data discovery and understanding new workflow design processes based on BIM and cross-disciplinary environments.
Tasks and used methods:
- Data science and visualization.
- Network analytics, text mining, semantic analysis.
- OCT 2015
DEC 2015 **Collaborator architect** at **Temperaturas Extremas** (Amann-Cánovas-Maruri). Madrid (Spain)
Management of the firm activity database and collaboration on urban planning projects.
- JUN 2015
JUN 2018 **Co-founder and architect. JARD**
(with Rodrigo Delso)
Independent technologist, architect, urban planner, and designer. Projects spanning from the physical environment to the virtual world, at the intersection of technology, creativity, and human interaction.
- JAN 2015
JUN 2016 **Manager assistant** at the **Polytechnic University of Madrid** (Spain).
Teaching, administrative and contents coordination of University Research Group Hypermedia, Specialization Graduate Program in Infographics, Multimedia Presentation for Architectural Communication, and University Master in Architectural Communication. Preparation of new lines of research and new research projects, coordination of researchers and professors, and design of new syllabus for new master's programs.
- JUN 2011
JUN 2015 **Co-founder and coordinator** of the **Association on Innovative Architectural Pedagogies**
Team: Rodrigo Delso, Ioannes Busca, María Luisa de Miguel, and Borja Gómez.
Platform for the dissemination of architectural culture and exploring new ways of alternative teaching of architecture off academia. Organization of temporary architecture interventions and yearly independent summer courses (100x10) for undergraduate students.
- OCT 2010
MAR 2011 **Intern architect** at **Lacaton et Vassal Architectes**, Paris. (France)
Development of architectural and urban design and urban planning projects: Lions-sur-Mer (France) city center refurbishment, Fulani Museum in Senegal, private clinic in Dakar (Senegal), New Holland Island renovation and museum in Saint Petersburg (Russia).
- SEP 2010 **Independent Designer**
Project: Cúbreme Latina: request from the collective EXYZT for designing an urban and public action and a temporary structure within its installation "City Island" built for the Madrid Nuit Blanche 2010.
Team: Gonzalo Pardo, Atxu Amann, Rodrigo Delso, and the research group STOY from the Polytechnic University of Madrid. (Spain)
- SEP 2010 **Photographer** for TINSA, S.A. for the elaboration of the photographic cadaster of the Community of Madrid (Spain).
- JAN 2010
MAR 2010 **Collaboration** with the architect Ramón Araujo for the elaboration of the refurbishment project of the historic building (16th century) of Gózquez de Arriba, Madrid (Spain).
- JAN 2010
APR 2010 **Collaboration** at the architecture office Maíz+Herrada in Madrid for the elaboration of reports about museum facilities belonging to the Spanish State for SEGIPSA.
- JAN 2008
FEB 2008 **Collaboration** at the architecture office Maíz+Herrada in Madrid for the public tendering process for the project on the urban basin of the Castile Channel in Valladolid. (Spain).
- MAY 2006 **Collaborator** in the setting up of the exhibition "IKONOS Pétreos"
6th International Fair of Stone hold in Ifema, Madrid Fair (Piedra'06)
With Ricardo Santonja and Leandro Alonso.
- MAY 2006
JUN 2011 **Collaborator** of the collective I+D+Art, directed by Ricardo Santonja.

TEACHING EXPERIENCE

- OCT 2022 **Guest lecturer** at **Carnegie Mellon University** (CMU), Pittsburgh PA (US)
Computational Design Pre-Thesis II Seminar. Master of Science in Computational Design. Prof. Daniel Cardoso Llach
- SEP 2022 **Assistant** at **ETH Zürich** (Switzerland)
- DEC 2022 **Computational Social Science Seminar** (3 ECTS). Prof. Dirk Helbing
- MAY 2022 **Guest jury** at **Carnegie Mellon University** (CMU), Pittsburgh PA (US)
Final semester critical session for 1st year student at the Master of Science in Computational Design.
- SEP 2022 **Lecturer** at **ETH Zürich** (Switzerland)
Participatory Resilience course (3 ECTS). Hackathon course format.
- MAR 2022 **Lecturer** at **ETH Zürich** (Switzerland)
Self-organization in Pedestrian and Traffic Systems and Logistics MOOC. Module 3: Introduction to Do-It-Yourself Traffic Simulation.
- SEP 2021 **Assistant** at **ETH Zürich** (Switzerland)
- DEC 2021 **Computational Social Science Seminar** (3 ECTS). Prof. Dirk Helbing
- JUN 2021 **Guest lecturer** at **ETH Zürich** (Switzerland)
"A perspective on the future of complexity and global systems science" with Dr S. Mahajan and Prof. Dr D. Helbing.
Spring semester course: Complexity and Global Systems Science

- SEP 2019 **Interns' mentor** at **La Rioja International University** (UNIR) (Spain).
- DEC 2019 Mentor of students at the Master's Degree in Artificial Intelligence for a professional internship at Urban Data Eye. Technical challenge: use of different architectures and frameworks of neural networks for object detection and learning transfer.
- SEP 2019 **Lecturer and instructor** at **Het Nieuwe Instituut**, Rotterdam (the Netherlands).
Workshop reDesigning Affect Space as part of the Neuhaus 2019 activities program. Together with Eric Kluitenberg and Rodrigo Delso.
- APR 2019 Invited lecturer
"ArtScience" Master program class at the Royal Academy of Art, The Hague (the Netherlands).
"JARD architecture and design practice overview", together with Rodrigo Delso.
- JUN 2018 Master thesis co-advisor. "La Ciudad XYZ. Benchmarking del desarrollo sostenible" ("The XYZ City. Sustainable development benchmarking"). Author: Alfredo Carrato Gómez. University Master in Architectural Communication (MACA). School of Architecture, Polytechnic University of Madrid (ETSAM-UPM) (Spain).
- DEC 2018
- JAN 2016 **Lecturer and instructor** at the **Polytechnic University of Madrid** (Spain)
- JUN 2016 Specialization Graduate Program in Infographics, Multimedia Presentation for Architectural Communication. Courses:
- Geometric Modelling (Digital Morphologies, Disciplinary Simulations, Advanced Workflows)
 - Representation (Diagramming and Graphic representation)
 - Presentation and Multimedia (Web).
- OCT 2015 **Lecturer and instructor** at the **Polytechnic University of Madrid** (Spain)
- JUN 2016 University Master in Architectural Communication, Courses as part of the Instrumental Fundamentals module:
- Mechanisms and Instrumentation for Communicative Generation
 - Mechanisms and Instrumentation for Communicative Production.
- MAR 2016 Invited lecturer at the "Communication Workshop" class managed by Atxu Amann at the Master in Architecture at the School of Architecture, Polytechnic University of Madrid (ETSAM-UPM), on communication strategy for the Final Thesis Project "HyperMobile Commuter City".
- FEB 2016 Invited lecturer at Studio class managed by Carmen Espejel at the School of Architecture of the Polytechnic University of Madrid (ETSAM-UPM), with the project "HyperMobile Commuter City, project based on data".
- OCT 2015 Invited lecturer at Studio class managed by Carmen Espejel at the School of Architecture of the Polytechnic University of Madrid, with the project "OUT – Open Urban Television" together with Rodrigo Delso.
- JUL 2015 Professor of the intensive course Workflows organized by the Students' Union of the School of Architecture of Madrid (daETSAM) together with Sergio del Castillo.
- MAY 2015 Invited professor at "Drawing, Analysis and Conception 2" managed by Atxu Amann at the School of Architecture, Polytechnic University of Madrid (ETSAM-UPM) as video edition instructor.
- MAR 2015 "HyperMobile Commuter City: project based on data". ESNE, University School of Design and Innovation, affiliated center to the Camilo José Cela University, Madrid (Spain).
- APR 2016, APR 2015, APR 2013, APR 2012, APR 2010 Tutor of freshmen students at the core course Drawing, Analysis & Ideation 2 for the design competition "Prontuario Sika". School of Architecture, Polytechnic University of Madrid (ETSAM-UPM) (Spain).
- JUN 2013 Organizer and teacher at the architecture intensification workshop "100x10 y olé" in Madrid and Cádiz (Spain).
- JUN 2012 Organizer and teacher at the architecture intensification workshop "100x10 On the road" hold in Toledo, Granada, Cartagena, Murcia, Alicante and Madrid (Spain).
- OCT 2010 Teacher assistant at the School of Architecture of Madrid and Moodle manager of the elective course "Sustainable toy: design and thinking". Polytechnic University of Madrid (UPM) (Terms Fall 2010 and 2011).
- JAN 2012
- JUN 2011 Organizer and teacher at the architecture intensification workshop 100x10 in Martín Muñoz de Ayllón, Segovia (Spain).
- NOV 2010 Teacher Assistant for foreign students (English teaching) at the international course "Sustainable toy: thinking and design" as part of the European program ATHENS (Advanced Technology Higher Education Network/Socrates at the School of Architecture, Polytechnic University of Madrid (ETSAM-UPM).
- MAR 2010 Teacher Assistant for foreign students (English teaching) at the international course "One week/One competition" as part of the European program ATHENS (Advanced Technology Higher Education Network/Socrates at the School of Architecture, Polytechnic University of Madrid (ETSAM-UPM).
- NOV 2009 Teacher Assistant for foreign students (English teaching) at the international course "One Woman Minute. Woman landscape in Madrid" as part of the European program ATHENS (Advanced Technology Higher Education Network/Socrates at the School of Architecture, Polytechnic University of Madrid (ETSAM-UPM).
- SEP 2009 Teacher Assistant, School of Architecture, Polytechnic University of Madrid (ETSAM-UPM)
- MAY 2010 Core courses Drawing, Analysis and Conception 1 & 2 managed by Atxu Amann and Gonzalo García Rosales.

CONFERENCES AND PRESENTATIONS

- NOV 2019 "Machine Learning and Collective Bodies: Urban Data Eye" [With Rodrigo Delso]. Digital Urbanism Symposium. Blekinge Institute of Technology (BTH). Karlshamn (Sweden).

- SEP 2019 "JARD x Neuhaus: reDesigning Affect Space" at Thursday Night Live. Het Nieuwe Instituut (HNI)
Part of "Neuhaus 2019" program of HNI. Rotterdam (the Netherlands).
- JUL 2019 "An Ecology of Conflicts" at the 18th International Conference CAAD Futures.
KAIST (Korea Advanced Institute for Science and Technology). Daejeon (South Korea).
- JUL 2019 "The Social Life of Small Urban Spaces 2.0." at the 18th International Conference CAAD Futures hold at KAIST (Korea
Advanced Institute for Science and Technology). Daejeon (South Korea).
- JUL 2019 "Support systems for Design Decisions" session chair. 18th International Conference CAAD Futures.
KAIST (Korea Advanced Institute for Science and Technology). Daejeon (South Korea).
- FEB 2019 "From the line of CAD to the line of CODE" [with Rodrigo Delso and Iago Romero, as part of Urban Data Eye].
Conference for the Ventures Forum. Master in Architectural Management and Design. IE School of Architecture and
Design, Madrid (Spain).
- DEC 2018 "Understanding Public Space Use in Market Square". Department of Transportation (PennDOT) and Department of
Community and Economic Development (DCED), Commonwealth of Pennsylvania. Harrisburg, PA (USA).
- JUL 2018 "Design Ecologies: A Networks Perspective. Using Network Analysis to Study Design Processes" [Poster, coauthored
with Daniel Cardoso Llach]. 8th International Conference on Design, Computing and Cognition (DCC'18). Politecnico di
Milano, campus in Lecco (Italy).
- MAR 2017 Reviewer of the First International Conference in Architectural Communication (COCA 2017). Organized by the
University Master's in Architectural Communication (MACA) in collaboration with the School of Architecture of
Madrid (ETSAM), the Spanish Ministry of Public Works, and the School of Architecture of Genova. Madrid (Spain).
- MAY 2016 "OUT - Open Urban Television" [with Rodrigo Delso], discussion and network meeting "Technology/Affect/Space 2#:
Designing Affect Space". Het Nieuwe Instituut, Rotterdam (the Netherlands), in partnership with MIT-ACT
(Cambridge, MA, USA) and LAPS (Amsterdam, the Netherlands).
- DEC 2015 "Open Urban Television" presentation for the workgroup "Streamlab" on mobile streaming. Medialab Prado, Madrid
(Spain).
- NOV 2015 "Hypermobile Commuter City: Urban and Architectural Design programmed through algorithms based on Big Data
Management". XIV National Scientific Prize Arquímedes Congress for young researchers. Social and Human Sciences
Center of the Spanish National Research Council, Madrid (CCHS-CSIC), (Spain).
- SEP 2015 "OUT – Open Urban Television" [with Rodrigo Delso and Alberto Gómez], opening and public presentation for
"Connecting Cities", a project funded by the European Union. Technological hub Medialab-Prado, Madrid (Spain).
- MAR 2015 "Paréntesis, ¿y tú qué haces?" Round table moderated by Victoria Acebo and Jacobo García-Germán. Participants:
255, Taller de Casquería, José Jajaja, LiqueLAV, JARD, Vicente Monroy, Paper Architectural Histamine. Architects
Association of Madrid (COAM), Madrid (Spain).
- JAN 2015 "HyperMobile Commuter City". PFestC/3rd digital and video exhibition of Final Degree Projects.
School of Architecture, Polytechnic University of Madrid (ETSAM-UPM) (Spain).
- JUN 2012 Talk in the congress EME3_2012, International Architecture Festival. Documentary+Talk 100x10+Especulaciones at
Architects Association of Catalonia (COAC). Barcelona (Spain)
- SEP 2011 "Learning by contagion. Case study: 100x10 Technical Projects Camp." At I International Congress on Learning,
Innovation and Competitiveness – V Freedom: The free flow of Knowledge (CINAIC).
Gómez Pardo Foundation, Madrid (Spain).

WORKSHOPS AND COMPLEMENTARY COURSES

- SEP 2022 Summer school "**Logic for the AI Spring**"
Lake Como School of Advanced Studies and Fondazione Alessandro Volta, Como (Italy)
Scholarship granted by Turing Center at ETH Zürich
- MAY 2022 Collaborative Workshop "**A Data Analyst, a Sociologist, and a Planner Walk into a...: New Collaborations in Critical
Urban Research**"
Center for Metropolitan Studies, TU Berlin (Germany).
- JUL 2020 Online program "**Machine Learning: Leveraging Data**"
AUG 2020 Massachusetts Institute of Technology Professional Education, Santander Scholarship for MIT Leading Digital
Transformation.
- MAY 2020 Online program "**Leading Digital Transformation**"
JUN 2020 Massachusetts Institute of Technology Professional Education, Santander Scholarship for MIT Leading Digital
Transformation.
- FEB 2018 Workshop "**Introduction to Systematic Reviews**" on **Evidence-based Management** by Campbell Collaboration.
Carnegie Mellon University, Pittsburgh, PA (USA).
- JAN 2018 Workshop X on **Future Cities** curated by Nicolas Negroponte. With the participation of Norman Foster, Nicholas
Negroponte, Greg Lynn, Kent Larson, Ricky Burdett, Luis Fernández-Galiano, Jonathan Glancey, Hugh Herr, Farshid
Moussavi, and Benedetta Tagliabue. Supported by Future Planet Capital.
Norman Foster Foundation. Madrid (Spain).
- JUN 2017 Integrated Network for Social Sustainability (INSS) Conference. Smart, Connected Communities.
Georgia Institute of Technology, Atlanta, GA (USA).

- MAR 2017 Workshop on "Machine Learning for Artists and Designers" with Parag Mital organized by the Frank-Ratchye Studio for Creative Inquiry at the College of Fine Arts of Carnegie Mellon University, Pittsburgh, PA (USA).
- OCT 2016 International conference ACADIA 2016 Posthuman frontiers: Data, designers and cognitive machines. University of Michigan, Ann Arbor, MI (USA).
- SEP 2016 Workshop on "Machine Learning for Artists and Designers" with Rebecca Fiebrink. Frank-Ratchye Studio for Creative Inquiry at the College of Fine Arts of Carnegie Mellon University, Pittsburgh, PA (USA).
- FEB 2016 Course for faculty: "Introduction to R". Institute of Educational Sciences, Polytechnic University of Madrid (Spain).
- JUL 2015 Authors workshop "How to write great papers: from tittle to reference, from submission to publication" Organized by Elsevier and Polytechnic University of Madrid Library. Industrial Engineering School, Polytechnic University of Madrid (Spain).
- MAY 2015 Course for faculty: "Where to publish research papers and getting informed about citation index". Institute of Educational Sciences, Polytechnic University of Madrid, (Spain)
- APR 2015 Course for faculty: "Time management". Institute of Educational Sciences, Polytechnic University of Madrid (Spain).
- APR 2015 Course for faculty: "Temporal series" on statistical methods. Institute of Educational Sciences, Polytechnic University of Madrid (Spain).
- FEB 2015 Course for faculty: "Management of funds for R&D: research projects funded by public institutions in Spanish and European competitive calls". Institute of Educational Sciences, Polytechnic University of Madrid (Spain).
- JAN 2013 **ArcGIS** training course organized by the Students' Union of the School of Architecture of Madrid (Spain).
- MAY 2013
- MAY 2008 Weekend Architectural Workshop (WAW) on **Digital Production**. **Institute of Advanced Architecture of Catalonia (laaC)**, Barcelona (Spain).
- APR 2008 Workshop on Productive design instructed by Yvonne Lauryssen and Moritz Waldemeyer. Centro Párraga, Murcia (Spain).

EXHIBITIONS

- MAY 2021 Research projects "WYSIWYG" and "Understanding public space use in Pittsburgh's Market Square" at the Austrian Pavilion "We Like" of the 17th Biennale Architettura "How we will live together?" in Venice (Italy).
- NOV 2021
- DEC 2019 "Affect Theory. Machine Learning Systems for Urban Observation" with Rodrigo Delso, in Kluitenberg, E. "reDesigning Affect Space". In the Research Exhibition Fault Lines: Some Research Methods in Art and Design. The Royal Academy of Art, The Hague (the Netherlands).
- MAY 2018 Project "HyperMobile Commuter City" at the Spanish Pavilion "becoming" of the 16th Biennale Architettura "Freespace" in Venice (Italy).
- NOV 2018
- MAY 2018 Project "Open Urban Television" with Rodrigo Delso and Alberto Gómez, at the Spanish Pavilion "becoming" of the 16th Biennale Architettura "Freespace" in Venice (Italy).
- NOV 2018
- APR 2018 Project "HyperMobile Commuter City" at the 6th exhibition of the degree Final Projects from Spanish schools of Architecture as part of the 13th Spanish Architecture and Urbanism Biennial. School of Architecture of A Coruña (Spain).
- FEB 2018 Project "HyperMobile Commuter City" at the 6th exhibition of the degree Final Projects from Spanish schools of Architecture as part of the 13th Spanish Architecture and Urbanism Biennial. Palacio de la Antigua Capitanía General de Aragón (Zaragoza, Spain).
- APR 2018
- JAN 2018 Project "HyperMobile Commuter City" at the 6th exhibition of the degree Final Projects from Spanish schools of Architecture as part of the 13th Spanish Architecture and Urbanism Biennial. Architecture Association of the Balearic Islands (Colegio Oficial de Arquitectos de Islas Baleares, COAIB, Palma, Spain).
- FEB 2018
- NOV 2017 Project "HyperMobile Commuter City" at the 6th exhibition of the degree Final Projects from Spanish schools of Architecture as part of the 13th Spanish Architecture and Urbanism Biennial. School of Architecture, Polytechnic University of Valencia (Spain).
- JAN 2018
- NOV 2017 Project "HyperMobile Commuter City" at the 6th exhibition of the degree Final Projects from Spanish schools of Architecture as part of the 13th Spanish Architecture and Urbanism Biennial. School of Architecture, University of Seville (Spain).
- OCT 2017 Project "HyperMobile Commuter City" at the 6th exhibition of the degree Final Projects from Spanish schools of Architecture as part of the 13th Spanish Architecture and Urbanism Biennial. School of Architecture, University of Málaga (Spain).
- NOV 2017
- SEP 2017 Project "HyperMobile Commuter City" at Fama Lab 2017 (Architecture Fair and Ideas Lab) Final Projects exhibition held at the School of Architecture, Polytechnic University of Madrid (Spain).
- FEB 2017 Project "A-park-and-o" as part of the exhibition of the proposals for the competition "Un banco para compartir" (A bench to share) for new urban furniture for the city of Madrid. Architects Association of Madrid (COAM), together with Rodrigo Delso, Román Sost, and César Cañadas.

- JUN 2016 Project "HyperMobile Commuter City" at the 6th exhibition of the degree Final Projects from Spanish schools of
JUL 2016 Architecture as part of the 13th Spanish Architecture and Urbanism Biennial. Las Arquerías de Nuevos Ministerios (Spanish Ministry of Public Works exhibition gallery), Madrid (Spain).
- FEB 2015 "JARD's work, the city as data and flows" with Rodrigo Delso as JARD, in "¿Y tú qué haces?" within the cycle
MAR 2015 "Paréntesis". Architects Association of Madrid.

PRESS AND OTHER CITATIONS

- MAY 2021 Mörténböck, P., & Mooshammer, H. (Eds.). Platform urbanism and its discontents. 010 Publishers.
- NOV 2019 Cardoso Llach, D., Ozkar, M., "Cultivating the critical imagination: post-disciplinary pedagogy in a computational design laboratory", Digital Creativity, DOI: 10.1080/14626268.2019.1691604
- SEP 2019 Montalvo, C., "Lo que el algoritmo puede hacer por tu ciudad", Nius, 19 September, Madrid (Spain). Available at: https://www.niusdiario.es/economia/algoritmo-puede-hacer-ciudad-inteligencia-artificial_18_2813745317.html
- AUG 2019 Paniagua, E., "Paloma Cabello: "España se está vendiendo a terceros". Retina El País, 2 August, Madrid (Spain). Available at: https://retina.elpais.com/retina/2019/08/26/talento/1566808842_170634.html
- JUL 2019 "El programa internacional «Arcadis City of 2030 Accelerator» selecciona dos start ups españolas". eSmartCity, 22 July. Available at: <https://www.esmartcity.es/2019/07/22/programa-internacional-arcadis-city-of-2030-accelerator-selecciona-dos-start-ups-espanolas>
- JUL 2019 "Urban Data Eye e Iomob, finalistas del programa «Arcadis City of 2030 Accelerator, Powered by Techstar»". Muy Pymes, 19 July. Available at: <https://www.muypymes.com/2019/07/19/urban-data-eye-iomob-finalistas-programa-arcadis-city-of-2030-accelerator-powered-by-techstar>
- MAR 2019 Broglia, A., "Madrid busca a sus emprendedores sociales", Forbes, 10 March. Available at: <https://forbes.es/business/48454/madrid-busca-a-sus-emprendedores-sociales/>
- MAR 2019 "La revolución de las ciudades mediante el big data llega de la mano de dos startups españolas". DIR&GE, 5 March. Available at: <https://directivosygerentes.es/management/icemd-technology/t-actualidad/ciudades-big-data>
- MAR 2019 Vedor, L., "Urban Data Eye e LOLOLO são os projectos vencedores do Proptech Challenge da CBRE". PC Guia, 1 March. Available at: <https://www.pcguia.pt/2019/03/urban-data-eye-e-lololo-sao-os-projectos-vencedores-do-proptech-challenge-da-cbre/>
- FEB 2019 Lightman, K., "How sensor data can help cities improve public spaces". Axios, 26 February. Available at: <https://www.axios.com/how-sensor-data-can-help-cities-improve-public-spaces-0b227ed9-84d8-4f81-9b2d-177c0607472c.html>
- FEB 2019 Fernández, J.G., "Dos 'start up' españolas que van a revolucionar las ciudades gracias a los datos". Expansión, 2 February, Madrid (Spain). Available at: <https://www.expansion.com/economia-digital/innovacion/2019/02/27/5c757b2f22601dbf1c8b460c.html>
- JAN 2019 [TV program] Para Todos La 2 - Antonella Broglia nos presenta al equipo de Urban Data Eye que trabaja en Madrid o Pittsburgh, entre otros lugares. RTVE (Radiotelevisión Española), La 2, 19 January. Available at: <http://www.rtve.es/alacarta/videos/para-todos-la-2/para-todos-2-antonella-broglia-presenta-equipo-urban-data-eye-trabaja-madrid-pittsburg-entre-otros-lugares/4942490/>
- JAN 2019 [Radio] Dos hasta las Dos. Onda Madrid, 10 January. Available at: <http://www.telemadrid.es/programas/dos-hasta-las-dos/dos-9-2084581536--20190110020000.html>
- DEC 2018 "El Ayuntamiento premia a la empresa Urban Data Eye, que analiza en tiempo real el espacio público para mejorarlo". Europa Press, 12 December. Available at: <https://www.europapress.es/madrid/noticia-ayuntamiento-premia-empresa-urban-data-eye-analiza-tiempo-real-espacio-publico-mejorarlo-20181212163431.html>
- DEC 2018 "'Urban Data Eye' y 'Soulem', ganadores de la II edición de los premios MAD +". Gacetín Madrid, 12 December, Madrid (Spain). Available at: <https://gacetinmadrid.com/2018/12/12/urban-data-eye-y-soulem-ganadores-de-la-ii-edicion-de-los-premios-mad/>
- JUL 2016 "Así son los proyectos elegidos para los futuros bancos de Madrid". El Mundo, 29 July. Madrid (Spain). Available at: <https://www.elmundo.es/madrid/2016/07/29/579b6f3aca4741847b8b4596.html>
- DEC 2012 García, D., "El Equipo A de la pedagogía de la arquitectura", Yorokobu online, 3 December. Available at: <http://www.yorokobu.es/el-equipo-a-de-la-pedagogia-de-la-arquitectura/>
- JUN 2012 "Más de una treintena de arquitectos de toda España ocupan el Puertas de Castilla para investigar la dimensión sonora". La Vanguardia, 21 June, Murcia (Spain). Available at: <http://www.lavanguardia.com/local/20120621/54315743980/mas-de-una-treintena-de-arquitectos-de-toda-espana-ocupan-el-puertas-de-castilla-para-investigar-la.html>

INTELLECTUAL PROPERTY

- FEB 2017 Argota Sánchez-Vaquerizo, J., Delso Gutiérrez, R., Sost, R., Cañadas, C. "A_park_ando", number 003623032-0001. Registered Community Design, European Union Intellectual Property Office. European Union-wide register.