

GERARDO URETA CAMPOS, Ph.D.

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PROFILE

Industrial engineer and Ph.D. in Smart Industry working in applied AI and advanced analytics: predictive, prescriptive and causal models for decisions in housing and real estate, urban economics, transport, logistics and infrastructure. Founder of Traza Urbana (trazaurbana.cl), an applied data lab on Chilean cities. Over ten years of applied projects for public and private clients, peer-reviewed research, and university teaching in engineering since 2016.

EDUCATION

Pontificia Universidad Católica de Valparaíso <i>Ph.D. in Smart Industry — Summa Cum Laude (final grade 6.9/7.0)</i> Dissertation on land-market anticipation of an airport infrastructure announcement, using causal inference and machine learning on cadastral microdata. Advisors: Álvaro Peña Fritz, Ph.D.; Mitsuyoshi Fukushima, Ph.D.	2023 – 2026
Pontificia Universidad Católica de Chile <i>M.Sc. in Engineering Sciences, Transport and Logistics Engineering area</i> Thesis approved in 2026: <i>Análisis de las preferencias de localización y segmentación de agentes logísticos en la Región Metropolitana de Santiago, Chile</i> , on logistics sprawl in Santiago (1985–2020) and location choice by type of logistics facility. Advisors: Ricardo Giesen, Ph.D.; Ricardo Hurtubia, Ph.D.	2019 – 2026
Pontificia Universidad Católica de Valparaíso <i>M.Sc. in Smart Industry</i>	2023 – 2024
Pontificia Universidad Católica de Chile <i>Master of Construction</i>	2016 – 2018
Universidad Mayor <i>Professional Degree in Industrial Engineering</i>	2011 – 2017

EXPERIENCE

Independent consultant <i>Advanced analytics, predictive modeling and project appraisal</i> - DS19/DS49 social housing cost study (Allard&Partners, 2024–2025): geospatial and cost analysis of 47 projects; quantified a 307.6 UF per-unit cost increase and proposed a subsidy price-adjustment formula. - Mejillones Port Complex (SPIM, 2024): logistics and industrial real estate market studies in the Antofagasta Region. <i>Estudio de Espacio Temporal para la Demanda Eléctrica 2024–2033</i> (Systep for ENEL Distribución, 2023–2024): led the real estate growth modeling stage and contributed to the demand projection. - Coquimbo–La Serena ring road (AST Arquitectos, 2023–2024): automated mass appraisal of 10,000+ assets; 25–40% potential value increase in the direct influence area.	2023 – present
Traza Urbana <i>Founder</i> - Applied data lab on Chilean cities: public data (property cadastre, zoning plans, census, street network) turned, with GeoAI and engineering models, into tools for decisions on property, land, markets, investment, risk and logistics. - Public map of ravines (<i>quebradas</i>) and of streets that flood across Chile, built after the 8 October 2026 debris flow in Las Condes, with probable, non-official reconstructions of that event, the 13 October storm and the 20–21 October frontal system in Greater Santiago. Presented on TVN, MEGA, T13, CNN Chile, BioBioTV, Radio Cooperativa, La Tercera and Las Últimas Noticias (October 2026).	2026 – present
Universidad Finis Terrae <i>Part-time lecturer, Faculty of Engineering</i> Operations Management, Business Strategy, Logistics and Innovation Workshop (Industrial Engineering, undergraduate).	2026 – present
EconoDataAI <i>Founder and director</i> Territorial intelligence and GeoAI services built on georeferenced cadastral data.	Jun 2025 – Apr 2026
Economía Urbana <i>Founder and director</i> Led 50+ analytical projects in housing, real estate, energy, infrastructure and logistics; built a georeferenced database of 9+ million properties, cutting analysis time by 70%.	2014 – 2024
Universidad Diego Portales <i>Director of Academic Affairs, School of Industrial Engineering</i> Academic operations for 1,200+ students; chaired the Program Committee; reduced administrative turnaround by 40%.	2022 – 2023

Council member and subcommittee coordinator, Sustainable Mobility Infrastructure

- Led roundtables across 12 municipalities; proposal presented to the Ministries of Public Works, Transport and Housing.

UNIVERSITY TEACHING

Universidad Finis Terrae (2026–present) · Universidad Viña del Mar, master's program (2026–present) · Universidad de los Andes (2022, 2026) · Pontificia Universidad Católica de Chile, visiting lecturer (2024) · Universidad Andrés Bello (2019–2024) · Universidad Mayor (2017–2024) · Universidad Diego Portales (2022–2023) · Universidad de Santiago de Chile (2020–2023) · Pontificia Universidad Católica de Chile, teaching assistant (2017–2022) · Universidad de las Américas (2016–2019).

Areas: urban and real estate economics; operations management; project appraisal; optimization and systems; transport and logistics; business strategy.

Supervision: nine undergraduate theses (2020–2024); master's thesis advisor, Universidad Viña del Mar (2026–present).

PUBLICATIONS

Peer-reviewed articles

- Ureta, G., Peña Fritz, Á., & Fukushima, M. (2026). Anticipating the Airport: Extensive-Margin Construction Activation and Selective Appreciation Following an Infrastructure Announcement—Evidence from Cadastral Microdata (Torquemada, Valparaíso, Chile). *Sustainability*, 18(13), 6847. <https://doi.org/10.3390/su18136847>
- Ureta, G., Hurtubia, R., & Giesen, R. (2023). Preferencias de localización y segmentación de agentes logísticos en la Región Metropolitana de Santiago, Chile. *Estudios de Transporte*, 24(1), 1–20.

Under review

- Ureta, G. (2026). Civic Completeness Around Metro Stations: A Deficit Index and a Bootstrapped Efficiency Frontier for Station-Area Planning. Under review, *Land* (MDPI). Preprint: <https://doi.org/10.20944/preprints202609.1875.v1>

Preprints

- Ureta, G. (2026). Beyond the Linear Gradient: Non-Monotonic and Spatially Clustered Property Tax Assessment Gaps in Greater Santiago, Chile. SSRN Working Paper No. 7366738. <https://doi.org/10.2139/ssrn.7366738>
- Ureta, G., & Naranjo, M. J. (2026). Metro Infrastructure Expansion, Distributive Equity, and Investment Timing: Capitalization Evidence from Santiago's Lines 7, 8, and 9. Preprints.org. <https://www.preprints.org/manuscript/202608.2248>

Policy reports and conferences

- Mella Lira, B., Ureta, G., Araya, C., Pérez, F., & Saavedra, Á. (2025). *El Metro como catalizador de inversión pública: Aprendizajes para Santiago y sus comunas*. Centro CIUDHAD, Universidad Andrés Bello & Corporación Ciudades. <https://doi.org/10.13140/RG.2.2.25420.27527>
- Ureta, G., & Aravena, I. (2025). *Mitos y realidades de las contribuciones en Chile*. Fundación Piensa. <https://fundacionpiensa.cl/estudio/mitos-y-realidades-de-las-contribuciones-en-chile/>
- Conference presentations: Chilean Society of Public Policy (2022); Chilean Congress of Transport Engineering, CCHIT (2021); Latin American Real Estate Society, LARES, São Paulo (2018).

RESEARCH

Research assistant on three FONDECYT (ANID) projects at Pontificia Universidad Católica de Chile (2018–2021). Affiliations: CIUDHAD, Universidad Andrés Bello (Aug 2025 – Jan 2026); Faculty of Architecture, Universidad del Desarrollo (2025); ISCI (2019–2021); CIGIDEN (2018–2019).

SKILLS

- **Applied AI and advanced analytics:** predictive models (machine learning with XGBoost, spatio-temporal forecasting, hedonic and discrete choice models); prescriptive models (optimization, facility location, data envelopment analysis); causal models (difference-in-differences, Callaway–Sant'Anna, event studies, Rambachan–Roth, spatial econometrics).
- **Tools:** Python (pandas, GeoPandas, scikit-learn, XGBoost, statsmodels, SciPy, NetworkX, PuLP), R, SQL and DuckDB, PostgreSQL/PostGIS, QGIS, ArcGIS, H3, MapLibre, Jupyter, Git.
- **Certifications:** Urban Logistics Summer School, Universiteit Antwerpen (2021); Certified Urban Appraiser, ASATCH (2014); postgraduate diplomas from Pontificia Universidad Católica de Chile in Public Policy (2016), Economics (2013) and Urban Planning (2012).
- **Languages:** Spanish (native), English (advanced), Portuguese (intermediate).

Last updated: October 2026