

Adam Robert Swietek

Postdoctoral Scholar | Department of Urban Planning and Spatial Analysis

USC Sol Price School of Public Policy | Urban Data Lab

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ACADEMIC APPOINTMENT

2025-present University of Southern California, Los Angeles

Postdoctoral Scholar, Department of Urban Planning and Spatial Analysis, USC Price School; Urban Data Lab

EDUCATION

2024 EPFL - PhD, Architecture and Sciences of the City

Thesis: [Spatial Modeling for Building Design Evaluation: From Visual Landscape Quality Assessment to Devaluation Risk Estimation](#)

Advisor: Philippe Thalmann. Committee: Marilyne Andersen, Alexandre Alahi, Lint Barrage, and Silvia Tobias. Nominated for EPFL Thesis Distinction.

2019 Columbia University - MS, Real Estate Development and Finance

2013 Georgia Institute of Technology - BS, Mechanical Engineering

Minor in Energy Systems

RESEARCH INTERESTS

Environmental externalities in cities; urban, real estate, and environmental economics; spatial modeling and GeoAI; urban data science; building performance; computational design; climate adaptation and resilience.

PUBLICATIONS AND PREPRINTS

Swietek, A. R. (2026). "[Structure-to-Structure Connectivity and Urban Wildfire Destruction Risk in California](#)." SSRN preprint.

Swietek, A. R. (2024). "[Automated Design Appraisal: Estimating Real Estate Price Growth and Value at Risk Due to Local Development](#)." SSRN working paper.

Swietek, A. R., & Zumwald, M. (2023). "[Visual Capital: Evaluating Building-Level Visual Landscape Quality at Scale](#)." *Landscape and Urban Planning*, 240, 104880.

Swietek, A. R., & Schweizer, J. (2022). "[How View Determines Well-Being and Value](#)." Wuest Partner.

SELECTED RESEARCH IN PROGRESS

- **Urban Electrification:** AI-based analysis of electrical permits in Los Angeles.
- **Hidden Housing:** Detecting unpermitted dwelling units in Los Angeles.
- **Construction and Demolition Waste:** Analysis of Facebook Marketplace listings.
- **MeshCity:** A Python toolkit for loading and transforming USGS LiDAR point clouds.
- **Generative Design for Reducing Urban Fire Spread and Structure Loss.**
- **Estimating Spatial Basis Risk to Hedge Extreme Temperatures with Prediction Markets.**
- **Urban Geometry of Heat Island Intensity.**
- **Openview:** Open-source visual-network and viewpoint-simulation tools for large-scale urban visibility analysis.

GRANTS, FELLOWSHIPS, AND INNOVATION AWARDS

- 2023 **AVIA - ENAC Innovation Seed Grant**
Principal investigator; integrated data-driven impact assessment for early-stage architectural design optimization.
- 2022 **EPFL Blaze Trailblazer - REON**
Co-founder; automated reuse assessment for building components and construction materials.
- Circular Economy Transition Incubator - REON**
Selected for the nationwide incubator supporting circular-economy ventures.
- 2019-2024 **Marie Skłodowska-Curie Fellowship - EU Horizon 2020**
European Union Horizon 2020 research and innovation programme, grant agreement No. 754354.

TEACHING

- Economic Growth and Sustainability I (HUM-471)**
Teaching Assistant, EPFL Humanities and Social Sciences Program. Instructor: Philippe Thalmann.
- Economic Growth and Sustainability II (HUM-470)**
Teaching Assistant, EPFL Humanities and Social Sciences Program. Instructor: Philippe Thalmann.

STUDENT SUPERVISION

- 2024 **Esteban Requena - Master's thesis**
"Identifying Geographical Clusters of High or Low Sustainability Ratings and Their Implications."
- 2023 **Yannick Neypatraiky - Master's thesis, EPFL Civil Engineering**
Data-Driven Assessment of the Swiss Building Stock: Characterising Building Typologies for Energy Retrofit Prioritisation.
- 2022 **Paul Habert, Yannick Neypatraiky, and Thomas Rimbot - Machine Learning course project**
"Best Place for You to Live."

SELECTED PRESENTATIONS AND TALKS

- 2026 **"Openview: A Tool for Mesh-Based Urban Visibility Modeling and Analysis"**
2026 AAG Annual Meeting, San Francisco, California, March 17-21.
- 2024 **Spatial Modeling in Building Design Evaluation**
WSL Landscape Centre Seminar Series, July 2.
- 2023 **Spatial Statistics 2023: Climate and the Environment**
University of Colorado Boulder, July 18-21.
- 2023 **"Visual Capital: Large-Scale Assessment of Building-Level Visual Landscape Quality"**
EPFL EDAR Doc.Days, April 17. [Program](#) | [Video](#)
- 2020 **Forming Groups of Students Best Suited to Work Together on a Sustainability Issue**
With Philippe Thalmann. EPFL Teaching Sustainability Think Tank, November 23.