

**Josh Conrad, Ph.D.**

[dzahsh@gmail.com](mailto:dzahsh@gmail.com)

Austin, TX

## RESUME

### EXPERTISE

- GIS data management, data analysis, and data scholarship
- Historic preservation, architectural history, and design consulting

### EDUCATION

2023

#### **PhD in Architecture**

University of Texas at Austin, School of Architecture, Austin, TX

Advisor: Dr. Michael Holleran

Dissertation: *Data Practices and Racial Equity in Historic Preservation, Texas, 1953–1999*

2011

#### **Master of Architecture**

#### **Master of Science in Historic Preservation**

with Certification in the Graduate Portfolio Program in Sustainability

University of Texas at Austin, School of Architecture, Austin, TX

Thesis: *Web Design and the Interpretation of Place*

Capstone: *Enabling a more inclusive historical survey through 'event-based' database design*

2004

#### **Bachelor of Science in Architecture**

Georgia Institute of Technology, College of Design, Atlanta, GA

One-year study at Ecole Nationale Supérieure d'Architecture de Paris-La Villette, Paris, FR

### PROFESSIONAL WORK EXPERIENCE

2013–current

#### **GIS Specialist / Architectural Historian**

HHM & Associates, Austin, TX

Historic Preservation Consultants, [hhm-inc.com](http://hhm-inc.com)

- Migrated company's legacy data collection and management system to a custom web-based open source GIS platform, now on its fourth iteration, using PostGIS and Drupal API (PHP) on an Ubuntu Linux server hosted with Google Cloud Platform
- Managed database and UX development, evaluation, data migration, data backup, and training for 5-to-10 person team over the past 10+ years, for over 50 projects, documenting over 30,000 historic places across the country
- Conducted extensive historical research in libraries and archives across the US

2018–current

**Fellow / GRA (GIS Specialist)**

UT Libraries, Alexander Architectural Archives, Austin, TX

Digital Initiatives for Architectural Collections, [battlehall.lib.utexas.edu/author/joshconrad](https://battlehall.lib.utexas.edu/author/joshconrad)

- Worked with team of data librarians and archivists to develop a linked open geodatabase and spatial finding aid that connects various architectural datasets stored at UT archives, using ArcGIS Server and ArcGIS Online
- Developed a workflow for linking architectural data using Wikidata as an authority file, resulting in the creation of over 7,000 new Wikidata records of buildings and architects
- Led workshops and gave presentations about linked data and GIS practices to digital humanities community in Austin
- Awarded the 2023 Harold W. Billings Staff Honors Award by UT Libraries
- Faculty: Dr. Katie Pierce Meyer

2020–2021

**GRA (GIS Analyst)**

UT School of Architecture, Urban Information Lab, Austin, TX

*Austin Housing Analysis*, [austin-housing-ut-austin.opendata.arcgis.com](https://austin-housing-ut-austin.opendata.arcgis.com)

- Chosen as one of nine teams university-wide funded in 2020–2021 by UT research incubator Good Systems/Bridging Barriers
- Quantified the impact of 30 years of affordable housing policy in Austin by processing and spatially analyzing 30 million property value records from 1990 to 2020 using Python and ArcGIS Pro
- Compiled and managed 15-member research team composed of lab members, university faculty and city employees
- Created open data portal for hosting project datasets and results using ArcGIS Online and ArcGIS API for Python
- Awarded Smart Cities Connect’s annual “Smart 50” Award, which recognizes the most innovative smart cities projects globally
- Faculty: Dr. Junfeng Jiao, Dr. Jake Wegmann, Dr. Katie Pierce Meyer

2021

**GRA (GIS Analyst)**

UT School of Architecture, Austin, TX

- Assisted with GIS data analysis for a project entitled: "Here Come the Tall Skinny Houses: Assessing Single-Family to Townhouse Redevelopment in Houston, 2007-2020." Results published in 2023
- Faculty: Dr. Jake Wegmann

2020

**GRA (GIS Analyst)**

UT School of Architecture, Austin, TX

- Assisted with GIS data analysis for a project entitled: "Can We Use Administrative Data to Quantify Informal Housing Additions at the Parcel Level? An Analysis of Austin, USA." Results published in 2022
- Faculty: Dr. Jake Wegmann

2018–2019

**GRA (GIS Developer)**

UT School of Architecture, Austin, TX

*Mexican Hinterlands*, <https://mexicanhinterlands.org/>

- Mexican Hinterlands is a GIS digital humanities research and documentation project that cuts “la linea” on the east-west U.S.-Mexico boundary north-south by investigating how the railroad routes connected and shaped the built environment of cities, agricultural lands, and rangelands.
- Faculty: Dr. Sarah Lopez

2018

**Intern (GIS Analyst)**

City of Austin, Historic Preservation Office, Austin, TX

- 3-month internship helping to develop data analysis methods in support of the new Equity-based Preservation Plan

2010–2012

**GRA (GIS Developer)**

UT School of Architecture, Austin, TX

*Austin Historical Survey Wiki*, <dza.io/beta.austinhistoricalsurvey.org>

- A collaboration with UT and the City of Austin to develop a shared web-based GIS data collection tool for historic preservation that brings together citizens' local knowledge of historic places with the expertise of preservation professionals.
- Faculty: Dr. Michael Holleran

2009

**Intern**

Historic Santa Fe Foundation, Santa Fe, NM

- 3-month adobe and plaster conservation internship
- James L. Johnson House (El Zaguan), Donaciano Vigil House

2008

**Intern**

National Park Service, San Antonio Missions NHP, San Antonio TX

- 3-month stone masonry conservation internship
- Mission Espada, Mission San Juan

2008

**Intern**

Texas Parks and Wildlife, Austin, TX

- 3-month stone masonry conservation internship
- Mason Mt. WMA, Lake Brownwood SP (CCC camps)

2008

**Intern**

Texas Environmental Corps, Austin, TX

- 6-month seasonal landscape restoration and trail building crew
- Big Bend National Park, Balcones Canyonlands National Wildlife Refuge

2004–2006

**Architectural Designer**

Ryall Porter Architects, New York, NY

- Projects included renovation of 1880s Vermont barn residence and renovation of 1910 Brooklyn brownstone townhouse

2002-2004

**Architectural Designer**

Busman Design Studios, Atlanta, GA

- Projects included interior residential and commercial renovation projects

PUBLICATIONS

2023

J Wegmann, AN Baqai, and J Conrad. "Here Come the Tall Skinny Houses: Assessing Single-Family to Townhouse Redevelopment in Houston, 2007-2020" *Learning from Land Use Reforms: Housing Outcomes and Regulatory Change*, Furman Center for Real Estate and Urban Policy

2022

J Conrad, J Wegmann, S Mawhorter. "Can We Use Administrative Data to Quantify Informal Housing Additions at the Parcel Level? An Analysis of Austin, USA", *International Journal of Housing Policy*

2021

J Jiao., J Conrad, A Azimian. "Measuring Social Vulnerability in Transit Deserts of United States Metro Areas". *International Journal of Geospatial and Environmental Research* 8 (1), 3

2018

J Conrad. "Democratizing the Historical Survey," *PLAT* (Rice University), Issue 7.0 "Sharing"

2015

J Minner, M Holleran, A Roberts, J Conrad. "Capturing volunteered historical information: Lessons from development of a local government crowdsourcing tool." *International Journal of E-Planning Research*, 4:1

2013

J Conrad, L Hamer. "RNDRD.com | Ghost in the machine," *Dwell*, March 2013

2012

"New Works: Leah Haney" *Pastelegram*, April 2012.

2012

"RNDRD: Wireframe Aesthetic:" *Pastelegram*, February 2012.

2011

"Walter De Maria: Trilogies" *Pastelegram*, October 2011

2011

J Conrad, L Hamer. "Interview with Jorge Otero-Pailos," *Tarp* (Pratt Institute), Spring

2010

"Arthouse Redesign" *Art Lies*, Issue 67

## TALKS

Apr 2023

"Encoded Heritage," Digital Scholars in Practice series, University of Texas at Austin

Nov 2020

"Austin Housing Analysis", Open Data Meetup, City of Austin

Feb 2020

Geospatial Research Workshop, University of Texas at Austin

Oct 2018

Digital Humanities Project Showcase, University of Texas at Austin

July 2018

Digital Humanities Short Course, University of Texas at Austin

Nov 2017

"Automating and Democratizing the Historical Survey"

National Trust for Historic Preservation PastForward Conference, Chicago, IL

April 2015

"Place-Based Online Management Systems for Documenting the Built Environment"

Texas Conference on Digital Libraries, Austin, TX

June 2014

"Customize-Collaborate-Integrate: Moving Cultural Resource Data onto the Web"

Transportation Research Board ADC50 Meeting, San Antonio, TX

## COMMUNITY WORK

2022–current North Shoal Creek Neighborhood Association (president)

2019–current Texas Dance Hall Preservation (board member)

2017–current Austin History Center (digitalization volunteer)

2011–2017 *Pastelegram* magazine (staff volunteer), [rndrd.com](http://rndrd.com) , [pastelegram.org](http://pastelegram.org)

## SOFTWARE EXPERTISE

- ArcGIS Pro
- ArcGIS Online (including Dashboard, Hub, StoryMaps, Field Maps)
- ArcGIS Enterprise
- ArcGIS API for Python
- PostGIS
- QGIS
- Google Earth
- Google Maps API (Javascript)
- OpenLayers API (Javascript)
- PostgreSQL
- MySQL
- SQL Server
- Drupal, including customization using Drupal API (PHP)
- Administration of Linux virtual web servers running Apache (hosted on Google Cloud and Amazon Web Services)
- AutoCAD
- Vectorworks
- SketchUp
- Adobe Creative Suite (Photoshop, Lightroom , Illustrator, InDesign, Premiere)
- Microsoft Office (Word, Excel, Access, Powerpoint)
- Google Workspace (Docs, Sheets, Maps, Earth, Slides)
- Tableau
- OpenRefine
- Tesseract OCR

## COMPUTER LANGUAGE EXPERTISE

- Python
- PHP
- Javascript
- SQL
- SPARQL (Wikidata)
- JSON
- KML
- XML
- HTML/CSS

## LINKS

ArcGIS Online Profile

[https://www.arcgis.com/home/user.html?user=jc25927\\_ut\\_austin](https://www.arcgis.com/home/user.html?user=jc25927_ut_austin)

Wikidata Profile

<https://www.wikidata.org/wiki/User:Dzahsh>