CLAIRE GORMAN

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INTERESTS

creative computing, machine learning, computer vision, architectural and cultural landscapes research, data visualization and interface design

EDUCATION

Yale University, Class of 2020
B.A. Computing and the Arts (Architecture Concentration)

- Thesis: "TABULA RASA"
  - Used machine learning and urban studies methods to discuss emptiness, learning, and the intelligent machine
  - Advised by Drs. Anthony Acciavatti (Architecture) and Marynel Vázquez (Computer Science)
  - Presented at Ezra Stiles Mellon Forum 2020

HONORS

- **Class of 2020 Graduate Profile**, Yale News, 2020
  - Selected as one of 14 outstanding graduates in a class of 1,400, based on faculty nomination
- **Harvey Geiger Award for Architecture**, Yale College, 2019
  - First Computing and the Arts student awarded architecture prize for senior thesis research proposal
  - Funded independent field research in Hiroshima, Japan and Valdivia, Chile
- **Ezra Stiles Richter Fellowship**, Yale College, 2019
- **Ezra Stiles Mellon Fellowship**, Yale College, 2019

TALKS

Ezra Stiles Mellon Forum, May 2020

- Presented undergraduate thesis "TABULA RASA" to peers and residential college administration

Texas Cultural Landscapes Symposium, February 2020

- Presented original LiDAR viewshed analysis of Carlsbad Caverns
- Co-Presenters: Julie McGilvray (National Park Service), Malcolm Williamson (University of Arkansas), Erin Gearty (National Park Service)

EXPERIENCE

MIT Senseable City Lab,
Research Specialist 2020-present

- Focused on data analysis and visualization, project writing, and web interface design
- Primary contributor to development of Favela LiDAR research initiative using 3D laser scanning to study Brazilian informal settlements
- Also contributing web design and data visualization to projects regarding air quality, mobility, and segregation

Keller Easterling,
Research Assistant summer 2020

- Research assistant providing bibliographic materials and structuring advice for Yale School of Architecture advanced design studio course
- Topics addressed the theme of "No Normal," addressing the catastrophes of racism, pandemic, and climate emergency

Venice Biennale: Plan B Architecture & Urbanism,
Research Lead *2019–2020*

- *Produced concept development, extensive research, and exhibition writing for a project to be exhibited at the Venice Biennale*
- *Conducted wide-ranging research regarding global systems of land, water, and information management*
- *Coordinated and advised Masters students on graphic strategy and fabrication, as only undergraduate contributor*
- *Supervised by Bimal Mendis (Director of Undergraduate Studies (DUS), Yale Architecture) and Joyce Hsiang (DUS, Yale Urban Studies)*

National Council for Preservation Education,
Cultural Landscapes Intern *summer 2019*

- *Field research based in Guadalupe Mountains National Park, TX*
- *Produced independent project developing a method for LiDAR-based viewshed analysis within Carlsbad Caverns cave system (using one of the world's largest point cloud datasets)*
- *Developed original analytical methods combining hand-cartography with computer vision programming*
- *Presented at Texas Cultural Landscapes Symposium 2020*

Introduction to Human-Computer Interaction,
Undergraduate Learning Assistant *spring 2019*

- *Assisted with course grading, project supervision, and undergraduate technical questions for Computer Science department design course*

Yale Urban Ecology and Design Lab,
Research Assistant *2018*

- *Contributed grant writing, experimental assistance, and 3D modeling for ThermoGreenWall project (vertical constructed wetland engineered to cool water by evapotranspiration for building HVAC purposes)*

Code Haven Yale,
Director of Curriculum Development *2017–2018*

- *Designed introductory computer science curriculum to be taught to 4th-6th grade students in New Haven public schools*
- *Developed exercises and projects for elementary school students as well as methods of explaining those lesson plans to Yale student organization of 30–40 volunteers*
- *Collaboratively organized and led programming education workshop for New Haven elementary school teachers to encourage computer science literacy in schools*

Virgin Pulse (formerly RedBrick Health),
Data Science Intern *summer 2018*

- *Designed data pipeline and web interface to display internal calendar data*
- *Learned and applied tools including Docker, Streamsets, MongoDB, and React framework*

Yale University Art Gallery,
Visitor Services Representative *2017–2018*

- *Welcomed visitors to the Gallery as an information desk employee, staffed lectures and other events*

Mayo Clinic Neural Engineering Laboratory,
Intern *summer 2015*

- *Conducted data analysis of output from custom diamond reactor designed to coat the ends of microelectrodes for deep brain stimulation; objective was to locate the source of flaws in the electrode fabrication process*
- *Identified inconsistencies in data and presented findings to colleagues*

TRAVEL

Hiroshima, Japan *Fall 2019*

- *Funded senior thesis research on post-atomic urban reconstruction and Japanese postwar architecture*

Valdivia, Chile *Fall 2019*

- *Funded senior thesis research on Chilean landscape and reconstruction after the world's most powerful earthquake to date (Valdivia, 1960)*

Ciudad Abierta, Chile *Fall 2019*

- *Two-week residency at poetic architecture collective on the Chilean coast*
- *Conducted interviews in Spanish and archival research at Pontificia Universidad Católica de Valparaíso*

Trento, Italy *Summer 2017*

- *Harvard study abroad program covering the structure of the mind/brain and the cognitive science of magic and illusion*

ADVANCED COURSEWORK

Computer Science

- *Mathematical Tools for Computer Science, Data Structures and Programming Techniques, Computational Vision and Biological Perception, Advanced Computer Graphics, Advanced Digital Humanities, Creative AI for Visual Computing*

Architecture

- *Scales of Design, American Architecture and Urbanism, Modern Architecture, The City Before and After the Tubewell, Urban Lab I: City Making on the Margins, Urban Lab II: Sites Unknown*

Arts and Sciences

- *Visual Thinking, Ecology and the Future of Life, Primate Behavior and Ecology, Global Environmental History, Introduction to Surveillance Studies, Green Energy Systems, Elemental Media*

EXTRA-CURRICULAR

Women in Power Society *2019-2020*

- *Social cohort for ambitious non-male Yale College seniors*

FOOT (First-year Outdoor Orientation Trips) *2017-2019*

- *Backpacking trip leader for incoming Yale Colege students*

Blended Reality: Earth and Energy Intensive *2018*

- *Semester-long AR/VR workshop for climate change education*

Theatrical Design *2018; 2020*

- *Designed stage sets for undergraduate theater productions (by request)*

SKILLS

Computing

- *LiDAR analysis, Tensorflow and Keras (machine learning), R, Python, C, Java, JavaScript, HTML/CSS, React Framework, Apple ARKit, MATLAB, Docker, StreamSets with MongoDB, Tableau*

Design

- *Adobe Suite, Figma (web design), Rhino, SketchUp, hand-drawing*

Other

- *Urban field work, academic and exhibition writing, oral presentation, Spanish (conversational)*