

Racquel Fygenon

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Data Visualization Visual Cognition & Perception Human-Computer Interaction Visual Affordances

Education

- 2022 - **Ph.D. in Computer Science**
Northeastern University
Conducting research in **Visualization**, advised by [Dr. Enrico Bertini](#) and [Dr. Lace Padilla](#). Developing new methods to study and optimize visualizations' impact on the perception of information.
- 2020 - 2022 **M.S. in Computer Science**
New York University
- 2015 - 2019 **B.S. in Arts, Technology & the Business of Innovation**
Univ. of Southern California
Specialized in **Data Visualization** and Mechanical Design as an undergraduate in the [lovine & Young Academy](#).

Research & Work Experience

- 2020 - **Graduate Researcher**
Northeastern University & New York University
Followed Dr. Bertini's lab from New York to Northeastern. See Education section for more details.
- 2022 **Data Visualization Design Intern**
NASA JPL / Caltech
Designed responsive data visualization tools for three internal teams at the NASA Jet Propulsion Lab as part of Caltech's Data to Discovery program.
- 2020 **Visiting Researcher**
UCSB
Processed and visualized biometric data to research methods for mitigating chronic pain via biofeedback at [Dr. Hansma's lab](#).
- 2019 **Data Visualization Designer, Design Coordinator**
Crosstown LA
Designed and edited graphs about Los Angeles crime, traffic, and air quality for digital publication. Onboarded new designers to maintain publication standards.

Honors

- ★ 2022 **Best Paper Award**
IEEE VIS
for Multiple Forecast Visualizations (MFVs): Trade-offs in Trust and Performance in Multiple COVID-19 Forecast Visualizations
- 2020 - 2022 **Dean's Ph.D. Fellowship**
New York University
- 2019 **Program Valedictorian**
of the lovine & Young Academy at the University of Southern California

Publications

4. **The Arrangement of Marks Impacts Afforded Messages: Ordering, Partitioning, Spacing, and Coloring in Bar Charts**
[R. Fygenon](#), S. Franconeri, and E. Bertini
IEEE Transactions on Visualization and Computer Graphics (TVCG), 2023
- ★ 3. **Multiple Forecast Visualizations (MFVs): Trade-offs in Trust and Performance in Multiple COVID-19 Forecast Visualizations**
L. Padilla, [R. Fygenon](#), S. Castro, and E. Bertini
IEEE Transactions on Visualization and Computer Graphics (TVCG), 2022
Best Paper Award
2. **Impact of COVID-19 Forecast Visualizations on Pandemic Risk Perceptions**
L. Padilla, H. Hosseinpour, [R. Fygenon](#), J. Howell, R. Chunara, and E. Bertini
Scientific Reports, 2022

1. **A scalable process for manufacturing integrated, washable smart garments applied to heart rate monitoring**
N. Dabby, A. Aleksov, E. Lewallen, S. Oster, **R. Fygenon**, B. Lathrop, M. Bynum, M. Samady, S. Klein, S. Girouard
ISWC '17: Proceedings of the 2017 ACM International Symposium on Wearable Computers, 2017

In Preparation

Visual-Semantic Conflicts in Visualization: A Case Study on Patient-Reported Outcomes
R. Fygenon, E. Bertini and H. T. Gold

Teaching Experience

Teaching Assistant: Visual Cognition

Northeastern University — 2023
Helped design course curriculum, delivered lectures, guided design reviews, wrote & graded homework assignments and exams

Teaching Assistant: Managing Data in C++

University of Southern California — 2018
Held office hours, graded homework assignments

Professional Service

Reviewing

IEEE Visualization and Visual Analytics Conference (VIS) — 2023
ACM CHI conference on Human Factors in Computing System — 2023

Organizing

IEEE VIS workshop on Novel Directions in Vision Science and Visualization Research (VISxVISION) — 2023

Mentoring

Muxing Chen, M.S. Candidate in Information Design and Data Visualization — 2023

Patents

1. **Electronic device fabric integration**
US20200004290A1, 2020
N. Dabby, S. Oster, A. Aleksov, B. Lathrop, **R. Fygenon**