



JOHN R THOMPSON

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email

jrthomp.com
portfolio

EDUCATION

Georgia Institute of Technology Atlanta, GA Dec 2020

Ph.D. in Computer Science (HCI Focus)

Georgia Institute of Technology Atlanta, GA May 2016

M.S. in Human Computer Interaction

University of Virginia Charlottesville, VA May 2012

B.S. in Electrical Engineering

RESEARCH INTERESTS

Information visualization, human computer interaction, inclusive data experiences, human-centered AI, parametric authoring, co-design with blind and low vision users, user-centered design methodologies, and visual data storytelling.

EXPERIENCE

Autodesk Research (Contingent via TalentWave), HCI & Visualization Group

Atlanta, GA

Postdoctoral Researcher

Jan 2024 - Present

Researching at the intersection of HCI and AI. Exploring CAD user interfaces that support designers to create with generative AI models in the loop. Currently exploring visualization methods and interaction paradigms for users to make decisions on AI-generated CAD sketches.

Microsoft Research, EPIC Group

Atlanta, GA

Post Doc Researcher

July 2021 - Sep 2023

Researched novel computer applications that empower people to understand and communicate data. My research goal was to remove barriers to data visualization: including chart literacy, programming skills, and a lack of accessible data representations for blind or low-vision people. My research direction was realized by an AI-powered visualization authoring tool (Data Formulator) and visualization accessibility (Chart Reader & PSST).

Centers for Disease Control and Prevention (via ORISE)

Atlanta, GA

ORISE Fellow

May 2019 - Dec. 2020

Collaborating with public health scientists and communications specialists at the CDC to create data stories that visually explain health data to the general public. Products include: web-based animated/interactive visual stories; explainable essays; and static data visualizations.

Georgia Institute of Technology, John Stasko

Atlanta, GA

Graduate Research Assistant

Aug. 2014 - May 2020

Data Visualization for Graphic Designers: Investigating how graphic designers create information visualizations for public exploration and presentation. This research includes the design and implementation of an augmented vector graphics tool for applying expressive and flexible data encodings.

Narrative Visualization Authoring: Researching how designers (with minimal programming experience) think about authoring animated data graphics. The products of this formative work informed the design and implementation of an authoring tool for designers to create animated data narratives.

Adobe Research

San Francisco, CA | Seattle, WA

Creative Intelligence Technologies Lab Intern

Summer 2016 | Summer 2018

Data Animator: a design tool for creating animated and interactive data visualizations. I completed formative research for by surveying visualizations and interviewing visualization practitioners. This work informed the design and framework for Data Animator.

Data Illustrator: a vector drawing tool that allows designers to create sophisticated infographics and data visualizations without needing to code. I recreated complex and expressive data visualizations to derive a data graphics framework. I also started the design of the prototype system.

NASA Jet Propulsion Laboratory

Pasadena, CA

Data Visualization Intern

Summer 2015

Draper Laboratory



Cambridge, MA

UI Designer & Front-End Developer

Sep 2012 - July 2014

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PUBLICATIONS

- [Data Formulator: AI-Powered Concept-driven Visualization Authoring](#)** 2023
Chenglong Wang, John Thompson, Bongshin Lee. *To Appear at IEEE Transactions on Visualization and Computer Graphics (VIS '23)*. Best Paper Honorable Mention Award. 
- [Chart Reader: Accessible Visualization Experiences Designed with Screen Reader Users](#)** 2023
John Thompson, Jesse Martinez, Alper Sarikaya, Edward Cutrell, Bongshin Lee. *In the Proceedings of SIGCHI Conference on Human Factors in Computing Systems (CHI '23)*.
- [PSST: Enabling Blind or Visually Impaired Developers to Author Sonifications of Streaming Sensor Data](#)** 2022
Venkatesh Potluri, John Thompson, James Devine, Bongshin Lee, Nora Morsi, Peli De Halleux, Steve Hodges, Jennifer Mankoff. *In the Proceedings of ACM Symposium on User Interface Software and Technology (UIST '22)*.
- [Data Animator: Authoring Expressive Animated Data Graphics](#)** 2021
John Thompson, Zhicheng Liu, John Stasko.
In the Proceedings of SIGCHI Conference on Human Factors in Computing Systems (CHI '21).
- [Understanding the Design Space and Authoring Paradigms for Animated Data Graphics](#)** 2020
John Thompson, Zhicheng Liu, Wilmot Li, John Stasko
In Eurographics Conference on Visualization (EuroVis '20).
- [Critical Reflections on Visualization Authoring Systems](#)** 2019
Arvind Satyanarayan, Bongshin Lee, Donghao Ren, Jeffrey Heer, John Stasko, John Thompson, Matthew Brehmer, Zhicheng Liu. *In IEEE Transactions on Visualization and Computer Graphics (VIS '19)*.
- [A User-based Visual Analytics Workflow for Exploratory Model Analysis](#)** 2019
Dylan Cashman, Shah Rukh Humayoun, Florian Heimerl, Kendall Park, Subhajit Das, John Thompson, Bahador Saket, Abigail Mosca, John Stasko, Alex Endert, Michael Gleicher, Remco Chang
In Eurographics Conference on Visualization (EuroVis '19).
- [Data Illustrator: Augmenting Vector Design Tools with Lazy Data Binding for Expressive Visualization Authoring](#)** 2018
Zhicheng Liu, John Thompson, Alan Wilson, James Delorey, Sam Grigg, Bernard Kerr, Mira Dontcheva, John Stasko.
In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '18). Best Paper Award. 
- [Tangraphe: Interactive Exploration of Network Visualizations using Single Hand, Multi-touch Gestures](#)** 2018
John Thompson, Arjun Srinivasan, John Stasko.
In Proceedings of ACM AVI conference (AVI '18).
- [Understanding Data-Driven Visual Encodings through Deconstruction](#)** 2016
John Thompson, John Stasko.
IEEE VIS (VIS '16) Poster.

AWARDS

- Best Paper Honorable Mention Award, *IEEE VIS Transactions on Visualization and Computer Graphics* 2023
- Best Paper Award, *ACM CHI Conference on Human Factors in Computing Systems* 2018
- Outstanding Graduate Teaching Assistant, *School of Interactive Computing* 2018
- NSFVizzies Finalist (Interactive Category) for *Google Maps on Mars* 2017
- Adobe Research Fellowship Finalist 2016, 2017
- Georgia Tech MS-HCI Best Project Nominee for *Shot Trend: A Golf Analytics Tool* 2016

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SERVICE

Tech Chair: IEEE VIS	2022-24
Co-Chair: PacificVis Visual Data Storytelling Competition	2023-24
Program Committee: IEEE VIS	2023-24
Reviewer: CHI	2018-24
Reviewer: IEEE VIS Full Papers	2016-22
Program Committee: CHI Late Breaking Work	2018
Reviewer: IEEE VIS (VAST Challenge)	2015-18
Panelist: Georgia Tech MS-HCI Open House	2015-17

TEACHING EXPERIENCE

Lab Instructor & Teaching Assistant: CS4460 Information Visualization	2017
Teaching Assistant: CS7450 Information Visualization	2016
Guest Lecturer: CS7450 Information Visualization (Intro to D3.js)	2016
Guest Lecturer: Georgia Tech Teach & Learn (Intro to D3.js)	2015
Calculus I Grader: University of Virginia	2010