1. **FULL NAME**
   Ryan Jordan Crouser

2. **ADDRESS AND TELEPHONE NUMBER**

Campus	**Home**
Department of Computer Science	9 William Street
Bass 107	Easthampton, MA 01027
413-585-4036	413-222-0907

3. **DEGREES**

Degree	Year	Institution	Subject
Ph.D.	2013	Tufts University	Computer Science
			Topic: *visual analytics, human–computer interaction*
M.Sc.	2010	Tufts University	Computer Science
			Topic: *educational technology, human–computer interaction*
A.B.	2008	Smith College	Computer Science & Mathematics

4. **AWARDS AND HONORS**

2020   Eurographics/IEEE Symposium on Visualization (EuroVis),
Honorable Mention for Best Short Paper.

2017   IEEE Conference on Visual Analytics Science and Technology (VAST),
Honorable Mention for Best Poster.

2014   IEEE VGTC Visualization Pioneers Group,
Doctoral Dissertation Award, Honorable Mention.

2014   MIT John S.W. Kellett '47 Award,
for work with the *MITLL Out Professional Employee Network*.

2012   Acceptance to IEEE Visual Analytics Science and Technology Doctoral Colloquium.

2012   Acceptance to the Northeastern University ADVANCE Future Faculty Workshop.

2011   IEEE Conference on Visual Analytics Science and Technology (VAST),
Honorable Mention for Best Paper.

5. **EMPLOYMENT HISTORY**

Dates	Employer	Title	Department
2017-present	Smith College	Asst. Professor	Computer Science
2015-2017	Smith College	Visiting Asst. Professor	Statistical & Data Sciences
2013-2015	MIT Lincoln Laboratory	Technical Staff	Cyber Analytics & Decision Support

6. GRANTS RECEIVED

2020   PI, *Further Investigating the Role of Individual Differences in Visual Analytic Workflows*, Laboratory for Analytic Sciences at North Carolina State University, U.S. Department of Defense, $78,833 to Smith ($161,901 total) over 1 year, with Alvitta Ottley at Washington University at St. Louis.

2020   co-PI, *CHOICE: Connecting Humans through Opportunities for Impromptu Casual Engagement*, President's Innovation Challenge, Smith College, $8200 over 1 year, with Valerie Joseph.

2019   PI, *Investigating the Role of Individual Differences in Visual Analytic Workflows*, Laboratory for Analytic Sciences at North Carolina State University, U.S. Department of Defense, $31,299 to Smith ($109,914 total) over 1 year, with Alvitta Ottley at Washington University at St. Louis.

2018   PI, *Perceptually-Optimized Approximation Strategies for Big Data Analytics*, Laboratory for Analytic Sciences at North Carolina State University, U.S. Department of Defense, $103,732 over 1 year.

2018   Jean Picker Fellowship, Smith College. Provided one course release.

2017   PI, *Composable Coordinated Visualizations for Streaming Data*, Laboratory for Analytic Sciences at North Carolina State University, U.S. Department of Defense, $87,618 over 1 year.

2016   PI, *A Survey of Visual Analytics Tools for Effective Decision-Making*, Laboratory for Analytic Sciences at North Carolina State University, U.S. Department of Defense, $55,309 over 1 year.

2016   PI, *Theoretical Models of Human-Machine Interaction in Streaming Analysis Contexts*, Pacific Northwest National Laboratory, U.S. Department of Energy, $49,000 over 1 year.

2016   PI, *Curriculum Integration Grant: SDS 136 – Communicating with Data*, Smith College Museum of Art (SCMA), $3,250 over 1 semester.

2015   PI, *Global Pattern Search at Scale*, MIT Lincoln Laboratory, $320,000 over 2 years.

2015   co-PI, *Adaptive, Reinforced, Iterative Visual Analytics (ARIVA)*, Information, Computation and Exploitation LINE, MIT Lincoln Laboratory, $430,000 over 2 years.

2014   PI, *Advanced Devices, Visualization and Intelligent Computation Environment (ADVICE)*, MIT Lincoln Laboratory, $75,000 over 1 year.

7. PUBLICATIONS

An asterisk (*) denotes coauthors that were undergraduate students at the time of submission. For citation information, please see my Google Scholar profile: https://scholar.google.com/citations?user=lnxO9joAAAAJ

Note: In computer science research, refereed publications occasionally come in pairs: a conference paper that represents the first public appearance of a finding; and (often) a corresponding journal publication that follows. Conference papers are considered more prestigious, as the peer-review process is more selective. Associated journal articles are required to contain at least 30% new material when compared to the corresponding conference paper, and are thus considered separate publications. Authors in my subdiscipline are generally listed in order of the relative magnitude of their contribution; additional information regarding my specific contributions can be found on the cover sheet for each manuscript included in this dossier.

7a. Journal Articles (peer-reviewed)

[CGF2020]   Zhengliang Liu, **R. Jordan Crouser** and Alvitta Ottley. Survey on individual differences in visualization. *Computer Graphics Forum*, 39(3): 693–712, 2020.

[ARAM2020]   Michael Penn, **R. Jordan Crouser**, and Philip Abbott. Serto before Serto: Reexamining the Earliest Development of Syriac Script. *Aramaic Studies*, 18:46-63, 2020.

[JCSC2019]   Christopher Andrews and **R. Jordan Crouser**. Using the VAST Challenge in undergraduate CS research. *Journal of Computing Sciences in Colleges,* 35(3): 57–66, 2019.

[TVCG2019]   Leilani Battle, **R. Jordan Crouser**, Audace Nakeshimana, Ananda Montoly*, Remco Chang, and Michael Stonebraker. The role of latency in predicting visual search behavior. *IEEE Transactions on Visualization and Computer Graphics*, 26(1): 1246–1255, 2019.

[HUGO2018]   Kristina Bush*, Michael Penn, **R. Jordan Crouser**, Nicholas Howe, and Shuangxia Wu*. Challenging the Estrangela / Serto divide: Why the standard model of Syriac scripts just doesn't work. *Hugoye: Journal of Syriac Studies*, 21(1):43-80, 2018.

[IC2017]   **R. Jordan Crouser**, Lyndsey Franklin, and Kris Cook. Rethinking visual analytics for streaming data applications. *IEEE Internet Computing*, 21(4):72–76, 2017.

[TVCG2017]   **R. Jordan Crouser**, Lyndsey Franklin, Alex Endert, and Kris Cook. Toward theoretical techniques for measuring the use of human effort in visual analytic systems. *IEEE Transactions on Visualization and Computer Graphics*, 23(1):121–130, 2017.

[IV2015]   Alvitta Ottley, **R. Jordan Crouser**, Caroline Ziemkiewicz, and Remco Chang. Manipulating and controlling for personality effects on visualization tasks. *Information Visualization*, 14(3): 223–233, 2015.

[VDA2015]   Shaomeng Li, Hans-Jörg Schulz, **R. Jordan Crouser**, Garth Griffin, Hank Childs, Connor Gramazio, and Remco Chang. Exploring hierarchical visualization designs using phylogenetic trees. In *IS&T/SPIE Electronic Imaging: Visualization and Data Analysis*, 2015. DOI: 10.1117/12.2078857. **Best Paper Award.**

[HC2014]   **R. Jordan Crouser**, Benjamin Hescott, and Remco Chang. Toward theoretical measures for systems involving human computation. *Human Computation*, 1(1):45–65, 2014.

[TVCG2013]   Caroline Ziemkiewicz, Alvitta Ottley, **R. Jordan Crouser**, Ashley Rye Yauilla*, Sara L. Su, William Ribarsky, and Remco Chang. How visualization layout relates to locus of control and other personality factors. *IEEE Transactions on Visualization and Computer Graphics*, 19(7):1109–1121, 2013.

[JPUC2012]   Michael S. Horn, **R. Jordan Crouser**, and Marina U. Bers. Tangible interaction and learning: the case for a hybrid approach. *Personal and Ubiquitous Computing*, 16(4):379–389, 2012.

[CGA2012a]   **R. Jordan Crouser**, Daniel Kee, Dong H. Jeong, and Remco Chang. Two visualization tools for analyzing agent-based simulations in political science. *IEEE Computer Graphics and Applications*, 32(1):67–77, 2012.

[CGA2012b]   Caroline Ziemkiewicz, Alvitta Ottley, **R. Jordan Crouser**, Krysta Chauncey, Sara L. Su, and Remco Chang. Understanding visualization by understanding individual users. *IEEE Computer Graphics and Applications*, 32(6):88–94, 2012.

[TVCG2012]   **R. Jordan Crouser** and Remco Chang. An affordance-based framework for human computation and human-computer collaboration. *IEEE Transactions on Visualization and Computer Graphics*, 18(12):2859–2868, 2012.

7b. Conference Articles (peer-reviewed)

[EURO2020] **R. Jordan Crouser**, Alvitta Ottley, Kendra Swanson*, and Ananda Montoly*. Investigating the Role of Locus of Control in Moderating Complex Analytic Workflows. In Proceedings of the *Eurographics/IEEE Symposium on Visualization (EuroVis), pp. 67-71. The Eurographics Association, 2020.* **Honorable Mention for Best Short Paper.**

[EURO2019] Alvitta Ottley, Aleksandra Kaszowska, Evan M. Peck, and **R. Jordan Crouser**. The curious case of combining text and visualization. In *Proceedings of the EG/VGTC Conference on Visualization (EuroVIS)*, pp. 121-125. The Eurographics Association, 2019.

[HST2017] **R. Jordan Crouser**, Erina Fukuda*, and Subashini Sridhar*. Retrospective on a decade of research in visualization for cybersecurity. In *IEEE Symposium on Technologies for Homeland Security (HST)*, 2017. DOI: 10.1109/THS.2017.7943494.

[HST2015] **R. Jordan Crouser**, Matthew C. Schmidt, Stephen Kelley, Benjamin Miller, Daniel Hook, Lauren Edwards, Maja Milosavljevic, Elizabeth Michel, Elizabeth Ferme, Robert Carrington, and Albert I. Reuther. Global pattern search at scale. In *IEEE Symposium on Technologies for Homeland Security*, 2015. DOI: 10.1109/THS.2015.7225293.

[VSEC2014] Diane Staheli, Tamara Yu, **R. Jordan Crouser**, Suresh Damodaran, Kevin Nam, David O'Gwynn, Lane T. Harrison, and Sean McKenna. Visualization evaluation for cyber security: trends and future directions. In *Proceedings of the IEEE Symposium on Visualization for Cyber Security (VizSec)*, pp. 49-56. IEEE, 2014.

[PAC2013] **R. Jordan Crouser**, Jeremy G. Freeman, Andrew Winslow, and Remco Chang. Exploring agent-based simulations in political science using aggregate temporal graphs. In *Proceedings of the IEEE Pacific Visualization Symposium (PacificVis)*, pp. 177-184. IEEE, 2013.

[VAST2011] Caroline Ziemkiewicz, **R. Jordan Crouser**, Ashley Rye Yauilla*, Sara L. Su, William Ribarsky, and Remco Chang. How locus of control influences compatibility with visualization style. In *Proceedings of the IEEE Conference on Visual Analytics Science and Technology (VAST)*, pp. 81-90. IEEE, 2011. **Honorable Mention Best Paper**.

[CHI2009] Michael S. Horn, Erin Treacy Solovey, **R. Jordan Crouser,** and Robert J.K. Jacob. Comparing the use of tangible and graphical programming languages for informal science education. In *Proceedings of the 27th International Conference on Human Factors in Computing Systems (CHI), pp.975-984.* ACM, 2009.

[ICC2008] **R. Jordan Crouser**, Brian Rice, and Adrian Sampson. On-line distributed traffic grooming. In *Proceedings of the IEEE International Conference on Communications,* 2008. DOI: 10.1109/ICC.2008.984.

7c. Workshop Papers and Extended Abstracts (peer-reviewed)

[LDAV2019p] John Fallon and **R. Jordan Crouser**, VAMDD: Visual analytics for multimodal disaster data. In *Proceedings of the 9th IEEE Large Scale Data Analysis and Visualization Symposium (LDAV)*, 2019.

[VDH2018w] **R. Jordan Crouser**, Michael Penn, and Nicholas R. Howe. Scalable Syriac paleography using interactive visualization. In *3rd Workshop on Visualization for the Digital Humanities,* 2018.

[VAST2017p] Ji Won Chung*, Isha Raut*, Ji Young Yun*, Kelly Pien*, Subashini Sridhar*, Morganne R. Crouser, and **R. Jordan Crouser**. DSMVis: Interactive visual exploration of the DSM-5 for mental health providers. In *Proceedings of the IEEE Conference on Visual Analytics Science and Technology (VAST)*, 2017. **Honorable Mention Best Poster.**

[CMH2016p] **R. Jordan Crouser** and Morganne R. Crouser. Mind the gap: the importance of pluralistic discourse in computing for mental health. In *ACM SIGCHI Workshop on Computing and Mental Health, San Jose, CA, USA*, 2016.

[IUI2016w] **R. Jordan Crouser**, Lane Harrison, Dan Afergan, and Evan M. Peck. Beyond detection: Investing in practical and theoretical applications of emotion + vis. In *ACM IUI Workshop on Emotion and Visualization, Sonoma, CA, USA*, 2016.

[ISR2014p] Daniel Hook, Matthew C. Schmidt, Robert Carrington, **R. Jordan Crouser**, et al. Global pattern search at scale. In *Intelligence, Surveillance, and Reconnaissance Systems and Technology Workshop*, 2014.

[VAST2012p] Alvitta Ottley, **R. Jordan Crouser**, Caroline Ziemkiewicz, and Remco Chang. Priming locus of control to affect performance. In *Proceedings of the IEEE Conference on Visual Analytics Science and Technology (VAST)*, pp. 237–238. IEEE, 2012.

[VAST2011p] **R. Jordan Crouser**, Jeremy G. Freeman, and Remco Chang. Exploring agent-based simulations using temporal graphs. In *Proceedings of the IEEE Conference on Visual Analytics Science and Technology (VAST)*, pp. 271-272. IEEE, 2011.

7d. Invited Articles (not peer-reviewed)

[VAST2019i] **R. Jordan Crouser,** Kristin Cook, John Fallon, Steven R. Gomez, Jereme Haack, Curtis Larimer, Kristen Liggett, and Diane Staheli. VAST Challenge 2019: Emergency Response with Uncertain Data. In *Proceedings of the IEEE Conference on Visual Analytics Science and Technology (VAST)*. IEEE, 2019.

[VAST2018i] **R. Jordan Crouser**, Kristin Cook, John Fallon, Kristen Liggett, Diane Staheli, Mark Whiting, and Kirsten Whitley. VAST Challenge 2018: Suspense at the wildlife preserve. In *Proceedings of the IEEE Conference on Visual Analytics Science and Technology (VAST)*, pp. 84-89. IEEE, 2018.

[VAST2017i] Mark A. Whiting, Kristin Cook, **R. Jordan Crouser**, John Fallon, Georges Grinstein, Jereme Haack, Cindy Henderson, Kristen Liggett, Diane Staheli, Jana Strasburg, Jerry Tagestad, and Carrie Varley. VAST Challenge 2017: Mystery at the wildlife preserve. In *Proceedings of the IEEE Conference on Visual Analytics Science and Technology (VAST)*, pp. 173-178. IEEE, 2017.

[VAST2016i] **R. Jordan Crouser**, Kristin Cook, John Fallon, Georges Grinstein, Kristin Liggett, Danko Nebesh, Diane Staheli, Mark A. Whiting and Kirsten Whitley. VAST Challenge 2016: Streaming visual analytics. In *Proceedings of the IEEE Conference on Visual Analytics Science and Technology (VAST)*. IEEE, 2016.

[VAST2015i] Mark Whiting, Kristin Cook, Georges Grinstein, John Fallon, Kristen Liggett, Diane Staheli, and **R. Jordan Crouser**. VAST Challenge 2015: Mayhem at DinoFun World. In *Proceedings of the IEEE Conference on Visual Analytics Science and Technology (VAST)*, pp. 113-118. IEEE, 2015.

[SPIE2011i] **R. Jordan Crouser**, Jeremy G. Freeman, and Remco Chang. Computational exploration of simulations in political science. *SPIE Newsroom*, (10.1117/2.1201105.003745), 2011.

7e. Book Chapters

[HHC2013] **R. Jordan Crouser**, Alvitta Ottley, and Remco Chang. Balancing human and machine contributions in human computation systems. *Handbook of Human Computation*, pp. 615–623. Springer New York, 2013.

FORTHCOMING

7f. Journal Articles (peer-reviewed)

[HUGO2020] Michael Penn, Vijoy Abraham, Scott Bailey, Peter Broadwell, **R. Jordan Crouser,** Javier de la Rosa, Nicholas Howe, and Simon Wiles. A New Tool for Computer Assisted Paleography: The Digital Analysis of Syriac Handwriting Project. To appear in *Hugoye: Journal of Syriac Studies*, 2020.

[CGA2020] Colin Scruggs*, Cameron Henkel*, Charles Stolper, Kristen Cook, and **R. Jordan Crouser**. Blending machine learning and interaction design in audio explorer. To appear in *IEEE Computer Graphics and Applications*, 2020. ePub DOI: 10.1109/MCG.2019.2950185.

7g. Invited Articles (not peer-reviewed)

[VAST2020i] **R. Jordan Crouser**, Kristen Cook, John Fallon, Steven R. Gomez, Jereme Haack, Curtis Larimer, Kristen Liggett, and Diane Staheli. VAST Challenge 2020: Responding to a Global Internet Outage. To appear in *Proceedings of the IEEE Conference on Visual Analytics Science and Technology (VAST)*. IEEE, 2020.

WORKS IN PROGRESS

7h. Under Review

1. Natthawut Max Adulyanukosol, **R. Jordan Crouser**, and Kristen Cook. Uncertainty-Aware Situational Awareness Visual Analytics Dashboards in the 2019 VAST Challenge. In submission to *IEEE Computer Graphics and Applications*.

7i. Articles in Preparation: Visualization & Visual Analytics

2. **R. Jordan Crouser**, Alvitta Ottley, Syrine Matoussi*, Eleni Partakki*, Ellen Dong*, and Peyton Frye*. Further Exploring the Role of Individual Differences in Moderating Analytic Workflows.

3. John T. Fallon and **R. Jordan Crouser**. A Survey of Visual Analytics Systems for Multimodal Data.

7j. Articles in Preparation: Computer Science & Education

4. **R. Jordan Crouser** and Michele T. Tine. Assessing the Effects of an Undergraduate Precollege Intervention Program on URM Academic Performance and Persistence at Top Colleges.

5. **R. Jordan Crouser** and Maggie Newey. Enhancing Data Science Education through Partnership with the Smith College Museum of Art.

7k. Articles in Preparation: Digital Humanities

6. Kristina Bush, Michael Penn, **R. Jordan Crouser,** Shuangxia Wu, and Nicholas Howe. Digital Means to Help Estimate the Composition Date of Syriac Manuscripts.

7. Michael Penn, Shuangxia Wu, Kristina Bush, **R. Jordan Crouser,** and Nicholas Howe. The 'Emergency' Olaph: How Big Data About Little Things Changes Our View of Ancient Scribes.

8. CONCERTS, PERFORMANCES, AND EXHIBITIONS

8a. Art Installations

1. "From the River to the Runway" with Cora Grant '19, Kelly Pien '20, and Muriel Brunet '17. April 19-26, 2017 in Hillyer Art Museum at Smith College. Recorded interview about the project available at: https://www.smith.edu/video/boater-hats

9. SCHOLARLY LECTURES AND OTHER PROFESSIONAL PRESENTATIONS

9a. Keynotes and Invited Talks

1. MIT Lincoln Laboratory (Lexington, MA). Invited. *Visual Analytics: Human-Machine Collaboration in the Age of Data Science.* January 2019.

2. Olin College of Engineering (Needham, MA). Invited. *How I Learned to Stop Worrying and Visualize My Data.* January 2017.

3. SIAM Annual Meeting (Boston, MA). Session keynote. *Introduction to Visual Analytics.* July 2016.

4. MIT Lincoln Laboratory (Lexington, MA). Invited. *How I Learned to Stop Worrying and Visualize My Data.* March 2016.

5. Smith College (Northampton, MA). Statistical and Data Sciences Colloquium Series. *Visual Analytics: Human-Machine Collaboration for Data Science.* June 2015.

6. Smith College (Northampton, MA). Department of Computer Science Seminar Series. *Toward Complexity Measures for Systems Involving Human Computation.* April 2014.

7. Tufts University (Medford, MA), Society for Industrial and Applied Mathematics Student Chapter. Invited. *Computational Support for Agent-Based Simulation Analysis in Political Science.* October 2012.

8. Smith College (Northampton, MA), Women in Mathematics in New England. *Possible, Likely, and Inevitable: Computational Methods for Exploring Simulations in Political Science.* September 2012.

9. MIT Lincoln Laboratory (Lexington, MA), Computing and Analytics Group. Invited. *Analytical Tools for Exploring Agent-Based Simulations in Political Science.* September 2012.

10. Lustick Consulting (Narberth, PA). Invited. *Possible, Likely, and Inevitable: Computational Methods for Exploring Simulations in Political Science.* June 2011.

11. Tufts University (Medford, MA) Graduate Research Symposium Plenary. *Possible, Likely, and Inevitable: Computational Methods for Exploring Simulations in Political Science.* April 2011.

9b. Conference Talks and Posters

12. Eurographics/IEEE Symposium on Visualization (Virtual due to COVID-19). Conference talk. *Investigating the Role of Locus of Control in Moderating Complex Analytic Workflows.* May 2020.

13. LAS Research Symposium (Raleigh, NC). Poster session. *Uncovering Personality Differences in Exploratory Visual Analytics Tasks.* December 2019.

14. LAS Research Symposium (Raleigh, NC). Poster session, with Maddy Kulke* and You Jeen Ha*. *The Effects of Individual Differences on Visualization Use*. December 2018.

15. 3rd Workshop on Visualization for the Digital Humanities (Berlin, Germany). *Scalable Syriac paleography using interactive visualization*. October 2018.

16. LAS Research Symposium (Raleigh, NC). Poster session. *Visualizations for Data Exploration Tasks*. December 2017.

17. IEEE Conference on Visual Analytics Science and Technology (Phoenix, AZ). Poster session, with Morganne R. Crouser. *DSMVis: Interactive visual exploration of the DSM-5 for Mental Health Providers*. **Honorable Mention Best Poster.** October 2017.

18. IEEE International Symposium on Technologies for Homeland Security (Waltham, MA). Conference talk, with Erina Fukuda* and Subashini Sridhar*. *Retrospective on a decade of research in visualization for cybersecurity*. April 2017.

19. LAS Research Symposium (Raleigh, NC). Poster session. *Visualization Tools for Analysis Tasks*. December 2016.

20. LAS Research Symposium (Raleigh, NC). Poster session, with Erina Fukuda* and Subashini Sridhar*. *A Survey of Visual Analytics Tools for Effective Decision-Making*. December 2016.

21. IEEE International Conference on Visual Analytics Science and Technology (Baltimore, MD). Conference talk. *Theoretical Techniques for Measuring the Use of Human Effort in Visual Analytic Systems*. October 2016.

22. ACM SIGCHI Workshop on Computing and Mental Health (San Jose, CA). Conference talk, with Morganne R. Crouser. *Mind the Gap: the Importance of Pluralistic Discourse in Computing for Mental Health*. May 2016.

23. IEEE International Symposium on Technologies for Homeland Security (Waltham, MA). Conference talk. *Global Pattern Search at Scale*. April 2015.

24. IEEE Pacific Visualization Symposium (Sydney, Australia). Conference talk. *Exploring agent-based simulations in political science using aggregate temporal graphs*. February 2013.

25. IEEE International Conference on Visual Analytics Science and Technology (Seattle, WA). Conference talk. *An affordance-based framework for human computation and human-computer collaboration*. October 2012.

26. IEEE International Conference on Visual Analytics Science and Technology (Providence, RI). Poster session. *Exploring agent-based simulations using temporal graphs*. October 2011.

9c. Seminars, Masterclasses, and Colloquium Talks

27. MassMutual Data Science Development Program (Amherst, MA). 3-Day Invited Masterclass. *Introduction to Data Visualization*. July 2020.

28. MassMutual Data Science Development Program (Amherst, MA). 4-Day Invited Masterclass. *Introduction to R*. June 2020.

29. Stanford University (Stanford, CA). 2-Day Invited Masterclass. *Data Visualization for Digital Humanists*. November 2019.

30. MassMutual Data Science Development Program (Amherst, MA). 3-Day Invited Masterclass. *Introduction to Data Visualization*. June 2019.

31. MassMutual Data Science Development Program (Amherst, MA). 4-Day Invited Masterclass. *Introduction to R.* June 2019.

32. MassMutual Data Science Development Program (Amherst, MA). 2-Day Invited Masterclass. *Introduction to Machine Learning.* August 2018.

33. MassMutual Data Science Development Program (Amherst, MA). 3-Day Invited Masterclass. *Introduction to Data Visualization.* June 2018.

34. MassMutual Data Science Development Program (Amherst, MA). 3-Day Invited Masterclass. *Introduction to Data Visualization.* With A. McNamara. June 2017.

35. VentureWell (Hadley, MA). 1-Day Invited Masterclass. *Introduction to Data Visualization with Tableau.* October 2016.

36. Smith College (Northampton, MA). Colloquium for Summer Research Fellows (SURF) Program. *Perception and Context in Data Visualization.* June 2016.

37. MIT Lincoln Laboratory (Lexington, MA). PED Seminar Series. *Toward Complexity Measures for Systems Involving Human Computation.* February 2014.

38. MIT Lincoln Laboratory (Lexington, MA). Visual Analytics Community Seminar Series. *VIS Conference and VAST Challenge Summary.* With D. Staheli. October 2013.

39. MIT Lincoln Laboratory (Lexington, MA). Visual Analytics Community Seminar Series. *Crash Course in VA Methodology and Existing Toolkits.* September 2013.

40. IEEE International Conference on Visual Analytics Science and Technology (Seattle, WA), Doctoral Colloquium. *Toward Developmentally, Experientially, and Individually Appropriate Design.* October 2012.

41. Siena College (Latham, NY). Department of Computer Science Colloquium Series. *Possible, Likely, and Inevitable: Computational Methods for Exploring Simulations in Political Science.* December 2011.

42. Tufts University (Medford, MA) Department of Computer Science Colloquium Series. *Learning to Build, Building to Learn: Robotic Programming in Early Childhood.* April 2010.

43. Boston University (Boston, MA) Department of Computer Science Colloquium Series. *Learning to Build, Building to Learn: Robotic Programming in Early Childhood.* March 2010.

9d. Panels and Guest Lectures

44. Bucknell University (Lewisberg, PA). Guest Lecture for CSC 201: Computer Science Seminar Series. *Perception and Context in Data Visualization.* December 2019.

45. 2019 VAST Challenge Workshop, IEEE Conference on Visual Analytics Science and Technology (Vancouver, BC). Guest Moderator. *Visual Analytics Considerations for Emergency Response.* With J. Hullman, S. Goodwin, and G. Tietje. October 2019.

46. North Carolina State University (Raleigh, NC), Laboratory for Analytic Sciences Symposium. Guest Moderator. *Human-Machine Teaming.* With C. Paul, K. Thompson, K. Cook, and S. Szymczak. December 2018.

47. Smith College (Northampton, MA). Guest Lecture for CSC212: Data Structures. *User-Centered Design.* November 2018.

48. 2018 VAST Challenge Workshop, IEEE Conference on Visual Analytics Science and Technology (Berlin, Germany). Panel Discussion - Guest Moderator. *Practical Considerations for Combining Machine Learning and Interactive Visualization*. With N. Kodagoda, E. Brown, A. Perer, A. Endert, D. Fisher. October 2018.

49. Smith College (Northampton, MA). Guest Lecture for SDS/CSC109: Communicating with Data. *Bar and Line Charts*. September 2018.

50. Smith College (Northampton, MA). Guest Lecture for SDS/CSC193: Machine Learning. *Classification pt. 1*. September 2018.

51. Smith College (Northampton, MA). Guest Lecture for SDS/CSC193: Machine Learning. *Classification pt. 2*. September 2018.

52. Stanford University (Stanford, CA). Guest Lecture for RELIGST 391: Teaching Religious Studies. *Supporting Risk-Taking in the Classroom Environment*. June 2018.

53. North Carolina State University (Raleigh, NC), Laboratory for Analytic Sciences Symposium. Panel Discussion. *Analytics + Analysis*. With S. Szymczak, M. Schmidt, J. Campbell, and D. Shackle. December 2017.

54. Smith College (Northampton, MA). Sigma Xi, Panel Discussion. *What is the difference between Data Science and Statistics?* With B. Baumer and B. Minsky. September 2017.

55. Smith College (Northampton, MA). Guest Lecture for CSC111: Introduction to Computer Science through Programming. *Introduction to Data Visualization*. March 2017.

56. Smith College (Northampton, MA). Guest Lecture for LSS260: Visual Storytelling. *Perception and Context in Data Visualization*. September 2016.

57. Smith College (Northampton, MA). Guest Lecture for SDS291: Multiple Regression. *Linear Model Selection*. March 2016.

58. Tufts University (Medford, MA) Experimental College Guest Lecture. *Learning to Build, Building to Learn: Robotic Programming in Early Childhood*. September 2010.

10. OTHER PROFESSIONAL ACTIVITIES

10a. Grant Proposals

1. co-PI, *Investigating the Role of Individual Differences in Moderating Goal-Driven vs. Open-Ended Analysis*, Laboratory for Analytic Sciences at North Carolina State University, U.S. Department of Defense, ~$80,000 to Smith (~$175,000 total) over 1 year, with Alvitta Ottley at Washington University at St. Louis. *Submitted July 2020, under review.*

2. co-PI, *Enabling Personalized Response in Visual Analytics Using Active Search*, Laboratory for Analytic Sciences at North Carolina State University, U.S. Department of Defense, ~$70,000 to Smith (~$175,000 total) over 1 year, with Alvitta Ottley at Washington University at St. Louis. *Submitted July 2020, under review.*

3. co-Investigator, *Cultural-tailoring of Air Pollution Education Using Messaging Interventions to Promote Environmental Health Literacy in Immigrant Neighborhoods*, National Institutes of Health, $492,272 to Smith (~$5m total) over 5 years, with Carolyn Wong (PI), Doug Brugge, John Durant, Remco Chang, and Misha Eliasziw at Tufts University / Tufts Medical Center, Nan Yu at University of Central Florida, and Shanto Iyengat at Stanford University. *Not funded, preparing for resubmission.*

10b. Blog Posts

1. Albert Y. Kim, **R. Jordan Crouser**, and Benjamin Baumer. (May 2020). Slack for (A)synchronous Course Communication, [Online]. Available: https://stattlc.com/2020/05/29/slack-for-asynchronous-course-communication/

2. R. Jordan Crouser. (October 2019). Observations on Running a (CS) Research Lab with Undergrads, [Online]. Available: https://medium.com/smith-hcv/observations-on-running-a-cs-research-lab-with-undergrads-1a066c97db70

10c. Events co-Organized

IEEE Visual Analytics Science and Technology (VAST) Challenge.	2015-present
Graph Exploitation Symposium, MIT.	2016-present
IEEE VIS Conference.	2018-present
Streaming Visual Analytics Workshop. Laboratory for Analytic Science, North Carolina State University.	2016

10d. Celebrating Collaborations

1. Melanie Bancilhon '19, *Gender Representation Patterns in Game of Thrones: Rethinking the Bechdel Test,* April 2019.

2. Wencong (Priscilla) Li '18 and Ji Young (Justine) Yun '18, *NYC 311 - What Are Some of the Factors that Determine the Number of Days Spent to Solve Non-emergency Issues in New York City?* April 2017.

3. Subashini Sridhar '18J and Erina Fukuda '18, *Retrospective on a Decade of Research in IEEE Visualization for Cyber Security*, April 2017.

4. Mariem Ayadi '16 and Alice Yang '17, *"Sentimentaly" (Web application): A Facebook Page Sentiment Analyzer*, April 2016.

5. Martha Miller AC, *Interactive Data Visualization in Tableau: Exploring Degree Trends of Women in STEM*, April 2016.

6. Bianca Arevalo '16 and Ava Sharma '17J, *iNetFlow: A Solution Finder*, April 2016.

10e. Inclusion, Diversity, and Equity in STEM

2nd Annual Women of Color STEM Entrepreneurship Conference	Tempe, AZ	2017
White House Conference on Inclusive STEM Education for Youth of Color	Washington, DC	2016
Inaugural Women of Color STEM Entrepreneurship Conference	Tempe, AZ	2016

10f. Technical Workshops Attended

Computational Cybersecurity in Compromised Environments	Menlo Park, CA	2019
Visualization for the Digital Humanities	Berlin, Germany	2018
Computation and Visualization Consortium	Pomona, CA	2016
ACM SIGCHI Workshop on Computing and Mental Health	San Jose, CA	2016
IBM Human Computer Decision-Making Workshop	Cambridge, MA	2014
Human Computation Roadmap Summit	Washington, DC	2014
Analysis in Motion: the Science of Interaction	Richland, WA	2014

10g. Refereeing

Venue	Year
IEEE Symposium/Conference on Visual Analytics (VAST)	2010-present
Transactions on Visualization and Computer Graphics (TVCG)	2019-present
ACM Special Interest Group on Computer Human Interaction (SIGCHI)	2009-2013, 2015-2017
IEEE Conference on Information Visualization (InfoVis)	2010–2016
ACM Conference on Tangible, Embedded and Embodied Interaction (TEI)	2009–2014
ACM Symposium on User Interface Software and Technology (UIST)	2009–2013, 2016
IEEE Visual Analytics Science and Technology (VAST) Challenge	2012, 2014
New England Undergraduate Computing Symposium Poster Session	2012

10h. Open Curricula and Other Educational Resources

1. **R. Jordan Crouser** (2020). Getting started with Slack for (a)synchronous course-based communication. Available: https://jcrouser.github.io/files/Slack-for-Education.pdf

2. **R. Jordan Crouser**, Amelia McNamara, Albert Y. Kim, Ian Lyttle, and Mohamed Hussein (2018). Tidy ISLR: a tidyverse implementation the labs to accompany *An Introduction to Statistical Learning in R*. Available: https://github.com/SmithCollege-SDS/tidy-islr

3. Marina U. Bers, Louise Flannery, Elizabeth Kazakoff, and **R. Jordan Crouser** (2010). A curriculum unit on programming and robotics: part of the TangibleK Project. Available: https://scholarworks.smith.edu/csc_facpubs/91/

10i. Professional Consulting

Organization	Year
MassMutual Data Science Development Program	2015-present
SmithVent: CoVent–19 Challenge Winners	2020
SCS Noonan Scholars	2019-2020

10j. External Service

Program Committee

IEEE Conference on Visual Analytics Science and Technology (VAST).	2018-present
International EuroVIS Workshop on Visual Analytics (EuroVA).	2018-present
International Conference on Information Visualization Theory and Applications.	2015
ACM SIGCHI Conference on Computer Human Interaction (CHI), Works–in–Progress.	2011-2012

Editorial Board

Journal of Human Computation	2015-2017

10k. Doctoral and Other Graduate Service

Role	Candidate	Institution	Field	Year
PhD Adviser	J. Fallon	University of Massachusetts	CSC	Expected 2022
MS Adviser	S. Wang	University of Massachusetts	CSC	Expected 2021
MS Adviser	C. Huang	University of Massachusetts	CSC	2020

11. PROFESSIONAL MEMBERSHIPS

Institute of Electrical and Electronics Engineers (IEEE).
Association for Computing Machinery (ACM).

12. COLLEGE AND DEPARTMENTAL SERVICE

12a. Special Studies

Spring 2020	Julie Destine '21, Genel McLean '20, Teniel Rhiney '20, Valerie Medina Cebreos '20, Marcela Osorio Herrera 'AC. "Programming Languages for Data Science."
	Eli Boahen '20. "Creating for Humans."
	Rachel Carr '20. "Computational Poetry."
Spring 2019	Asmita Gautam '20. "Visual Analytics."
	Joce Kofke '19. "Supporting Self-Exploration through Video Game Design."
	Eindra Kyi '20. "Promoting Youth and Adolescent Mental Health through Interactive Games."
Fall 2019	Melanie Bancilhon '19. "Beyond Bechdel: Exploring the Intersection of Gender and Dialogue in Game of Thrones."
	Asmita Gautam '20. "Start Your Start Up."
Spring 2018	Jesse Krejci '18. "Using NLP to Explore Writing by Transgender Bloggers."
	Zainab Rizvi '18. "NLP for Mental Healthcare Applications."
Fall 2017	Ji Won Chung '18. "User Interface Design for Visual Analytics Systems."
	Zainab Rizvi '18 and Zhu Shen '19J. "NLP to Explore the DSM-5."
	Emma Stephenson '18. "Extending Open-Source Toolkits for Data Visualization."
	Subashini Sridhar '18J. "Capstone Project: Age-Related Disability in India."
Spring 2017	Abigail Doctor '17. "Applied Machine Learning."
	Eva Gjekmarkaj PB, Jessica Perry PB, and Sarah McNamara '19 (Mount Holyoke). "Advanced Machine Learning Techniques."
	Courtney Grant '19. "Interactive Exhibit: Digital Couture."
Spring 2016	Jordan Menter '16. "Applications of Data Science."

12b. STRIDE / AEMES Advising

2018-present	Renee Wu
2018-2019	Natalia Iannucci
2016-2018	Sara Elmourabit, Kelly Pien

12c. Liberal Arts Advising

2020-present	Greta Anesko, Bobi Arce Mack, Tracy Okai, Wynter Samuels, Aditi Sharma, Julia Yu

12d. Honors Theses

1. You Jeen Ha '20 (Smith College), Computer Science, *Reader*. "Algorithmic (In)explainability: causality and Machine Learning." Undergraduate Honors Thesis, May 2020. [Online].
   Available: https://scholarworks.smith.edu/theses/2221/

2. Ji Young Yun '18 (Smith College), Computer Science, *Adviser*. "Diagnosis Checker: an Interactive Interface for Mitigating Diagnostic Bias in Mental Health Care." Undergraduate Honors Thesis, May 2018. [Online].
   Available: https://scholarworks.smith.edu/theses/2078/

3. Wencong (Priscilla) Li '18 (Smith College), Statistical and Data Sciences, *Reader*. "Tools for Understanding Taxicab and E-Hail Service Use in New York City." Undergraduate Honors Thesis, May 2018. [Online].
   Available: https://scholarworks.smith.edu/theses/2032/

4. Jessica Wert '18 (Smith College), Engineering, *Reader*. "Microgrid Design Informed by Genetic Algorithms." Undergraduate Honors Thesis, May 2018. [Online].
   Available: https://scholarworks.smith.edu/theses/2072/

5. Weija "Vega" Zhang '17 (Smith College), Statistical and Data Science, *Reader*. "Improving Access to Open-Source Data About the NYC Bike Sharing System (CITI Bike)." Undergraduate Honors Thesis, May 2017. [Online].
   Available: https://scholarworks.smith.edu/theses/1871/

6. Kristina Bush '17 (Mount Holyoke College), Religion, *Reader*. "A Challenge to Syriac Paleography: Using Digital Tools to Contest Current Scholarship." Undergraduate Honors Thesis, May 2017. [Online].
   Available: https://ida.mtholyoke.edu/xmlui/handle/10166/4014

7. Alison Ochs '17 (Mount Holyoke College), Biology, *Reader*. "Methane Emissions from a Minnesota Peatland." Undergraduate Honors Thesis, May 2017. [Online].
   Available: https://ida.mtholyoke.edu/xmlui/handle/10166/4075

12e. Major Advising

Class of 2023	Kathleen Hablutzel, Michelle Sezgin, Alison Wong (CSC) Ruohan Wu (SDS)
Class of 2022	Kaia Cormier, Yun Lyu, Ananda Montoly (CSC)
Class of 2021	Fanghui He, Emily Rhyu, Iver Warburton, Ester Zhao (CSC)
Class of 2020	Sarah Abowitz, Stefany Alicea, Rachel Carr, Astou Dem, Charlotte Gephart, Isabelle Hodge, Mariama Jaiteh, Ebony Moseley, Josephine Nyoike, Karen Santamaria, Michelle Tsai Gomez, Tiffany Xiao, Chenwei Xu, Hening Zheng (CSC) Magdalene Carttar, Arielle Dror, Madeline Haines, Yejin Hwang, Mariama Jaiteh, Karen Santamaria, Tiffany Xiao (SDS) Eli Boahen (ATCN)
Class of 2019	Lynn Albright, Luya Gao, Miriam Hodas, Jocelyn Kofke, Kalynn Kosyka, Ariana Meredith, Felicia Villalobos (CSC) Mirella Hernandez, Kalynn Kosyka, Yue Kuang, Cindy Lu (SDS)
Class of 2018	Eleanor Ewing, Dejia Tang, Qiya Zhan (SDS)

12f. Minor Advising

Class of 2021   Ester Zhou (sds)

Class of 2020   Marleni Chavana, Kelly Pien (csc)

Class of 2019   Matty Kulke (csc)

Class of 2018   Subashini Sridhar, Preeti Dasari (sds)
Parker Foe (sts)

12g. SURF Advising and Other Undergraduate Research Supervision

2019-2020   Ellen Dong '22, Syrine Matoussi '22, Ananda Montoly '22, Eleni Partakki '22, Kendra Swanson '20 (Smith College), and Peyton Frye '22 (NCSU). "Individual Differences in Visual Analytic Workflows."

2018-2019   Alice Zheng Mu '19J, Georgina Chenwei Xu '20, Asmita Gautam '20, Kayahma Brown '22, Umeyma Ibrahim '22, Ruohan Wu '22 STRIDE (Smith College). "Interface Design for Evaluating the Role of Individual Differences in Visual Analytic Workflows."

Maddy Kulke '19, Ananda Montoly '22, Natalia Iannucci '22 STRIDE (Smith College). "Syriac Paleography Project"

2017-2018   Stella Chen Li '19, Hening Zheng '20, and Starry Yujia Zhou '20 (Smith College). "SURF: Classroom Use at Smith."

Sherry Zhenyao Cai '19 and Chris Xiaoyue Tan '21 (Smith College). "SURF: Effects of the Müller-Lyer Illusion on Perception of Position in Visual Analogue Scales."

Zainab Rizvi '18, Lucy Shen '19, and Ji Young Yun '18 (Smith College). "Computing for Mental Health."

Chenwei Xu '20, Alice Zheng Mu '19, and Zoey Sun '18 (Smith College). "Perceptually-Optimized Approximation Strategies for Big Data Analytics."

2016-2017   Maggie Carttar '20, Kelly Pien '20, and Ji Young Yun '18 (Smith College). "SURF: Computing for Mental Health."

Yue Kuang '19 and Lucy Shen '19 (Smith College). "SURF: Northampton Survival Center - Wait Time Analysis."

Sherri Lin '18 (Smith College). "SURF: Syriac Paleography Project."

Evan Reilly '19 (University of Vermont). "SURF: Interactive Models of Historic Clothing."

2015-2016   Artemis Metaxa-Kakavouli '19, Ji Won Chung '19 (Smith College), and Isha Raut '17 (Mount Holyoke College). "SURF: Computing for Mental Health."

Subashini Sridhar '18 and Erina Fukuda '18 (Smith College). "SURF: Designing Visual Analytics Tools for Effective Decision-Making."

Sam Behrens '16 and Zheng Mu '19 (Smith College). "SURF: Theoretical Models of Human-Machine Interaction in Streaming Analysis Contexts."

Parker Foe '17 (Smith College). "Visualizing the Transgender Population."

Kelly Pien '20 STRIDE, Muriel Brunet '17 (Smith College). "Building 3D Models of Historic Clothing Using Photogrammetry."

Summer 2015   Jordan Menter '16 (Smith College). "Global Pattern Search at Scale: Event Graph Mining." *At MIT Lincoln Laboratory.*

Summer 2013   Robert Ruenes '14 (Tufts University). "Global Pattern Search at Scale: Interface Design." *At MIT Lincoln Laboratory.*

12h. Courses Taught at Smith[1,2,3]

Spring 2020   CSC 250: Theory of Computation (54 students)◇
CSC 356: Topics in Human-Computer Interaction (15 students)◆◇

Spring 2019   CSC 250: Theory of Computation (56 students)

Fall 2018   CSC 111: Introduction to Computer Science through Programming (91 students)◇

Spring 2018   CSC 220: Advanced Programming (53 students)◆
CSC 250: Theory of Computation (66 students)◇

J-term 2018   Course 171: "Cracking the Technical Interview" (12 students)◆

Fall 2017   SDS 293: Machine Learning (44 students)

Spring 2017   SDS 192: Introduction to Data Science (89 students)
SDS 235: Visual Analytics (56 students)

J-term 2017   IDP 100: "J. Kubica's Computational Fairy Tales" (12 students)◆

Fall 2016   SDS 136: Communicating with Data (66 students)
SDS 293: Machine Learning (21 students)

Spring 2016   SDS 136: Communicating with Data (14 students)◆
SDS 293: Machine Learning (23 students)◆

Fall 2015   SDS 235: Visual Analytics (12 students)◆

12i. Courses Taught at Other Institutions

Spring 2015   COMP 150: Topics in Visual Analytics (15 students)◇
Instructor, Tufts University, Medford, MA.

Summer 2014   Theory and Methods for Modern Graph Analysis (60 students)
Instructor, MIT Lincoln Laboratory, Lexington, MA.

Spring 2013   COMP 11: Introduction to Computer Science (120 students)
Teaching Fellow, Tufts University, Medford, MA.

Fall 2012   COMP 250: Visual Analytics and Provenance (12 students)◇
Co-Instructor, Tufts University, Medford, MA, with Remco Chang.

---

[1] *Courses marked with ◆ were new offerings that I developed, those marked with ◇ were redesigns of existing courses.*
[2] *My teaching load was reduced during the following semesters: Fall 2015 (MassMutual Faculty Fellowship), Fall 2017 (Parental Leave), Spring 2019 (Picker Fellowship). I was on sabbatical during Fall 2019.*
[3] *The COVID-19 pandemic necessitated a mid-semester pivot to remote instruction. This required a rapid redesign of both courses I was teaching in Spring 2020.*

Spring 2012   COMP 11: Introduction to Computer Science (118 students)
Laboratory Instructor, Tufts University, Medford, MA.

12j. Departmental Service

2020-2021   Search Committee: Assistant Professor of Computer Science.

2020   Search Committee: Visiting Assistant Professor of Computer Science.

2019-present   Curriculum Committee.

2018-present   Honors Director.

2018-present   Poster Printing Liaison.

2017-2018   Recorder for Department Meeting Minutes.

12k. College Service

2020-present   Committee on Educational Technology, *Elected Member.*

2020-present   Affirming Identity Through Technology Working Group, *Member.*

2020-present   COVID-19 Remote Teaching Readiness Workshops, *Organizer / Presenter.*

    – 03/26/20: "Zoom + iPad Workflows" (open to all faculty)

    – 03/13/20: "Slack for Course Communication" (private workshop for FRN)

2019-2020   Identity and Representation Action Team, *Member.*

2017-present   Statistical & Data Sciences Program Committee, *Appointed CSC Representative.*

2016-present   Draper Competition for Collegiate Women Entrepreneurs, *Faculty Mentor.*

2016-present   Open Campus Faculty Lunch, *Department / Program Representative.*

2015-present   Science Center Committee on Diversity (SCCD), *Department / Program Representative, Interim Chair Spring 2017.*

2015-2018   5 College DataFest, *Faculty Consultant.*

2018   Attended November 29th Board of Trustees Retreat.

2018   Hosted ASU Prof. Erika Camacho for SCCD's annual lecture.

2017-2018   Young Library Planning Committee, *Member.*

2017-2018   Resource Center for Sexuality and Gender, *Faculty Advisory Board Member.*

2017   Hosted ASU Prof. Kimberly Scott, '91 for SCCD's annual lecture.

2017   Hosted 12 Development and Gift Officers to witness SURF Program.

12l. Community Service

2020   Western MA High School Science and Engineering Fair, *Judge.*

2018-2019   IEEE VIS Conference, Diversity and Inclusivity Committee, *VisKids Liaison.*

2016-present   CS Education Week, Springfield Public Schools, *Volunteer.*

2013-2015	MIT Lincoln Laboratory Out Professional Employee Network (LGBT Employee Resource Group), *Chair.*
2014-2015	MIT Lincoln Laboratory Career Mentoring Program, *Mentor.*
2012, 2014	Women in Mathematics in New England Conference, *Session Chair.*
2014	MIT Institute Diversity Summit, *Organizing Committee.*
2014	Industry Affiliate Partnership Program (Collaboration with University of Puerto Rico), *Project Adviser.*
2012	New England Undergraduate Computing Symposium, Brandeis University, *Judge.*
2009-2011	Tufts University Computer Science Engineering and Mathematics Scholars (CSEMS), *Graduate Mentor.*
2009-2010	Team Q: LGBT Center Speakers Bureau, *Panelist.*