Eric M. Clark

Data Scientist

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Education

PhD , *University of Vermont*, Burlington. **2014–2018**
Data Science

M.S., *University of Vermont*, Burlington, *GPA 3.81*. **2012–2014**
Applied Mathematics

B.S., *University of Vermont*, Burlington, *GPA 3.71*. **2009–2012**
Mathematics

Experience

Postdoctoral Research Scientist, **Jan 2019–Present**
UVM SEGS Lab, Burlington,VT, USA.
Research using online gaming simulations and agent based modeling to quantify behavioral risk dynamics in agricultural supply chain networks.

Data Scientist/Co-Founder, **Nov 2016–Present**
NeuroPath, Louvain-La-Neuve, Belgium.
Developing pilot software and clinical research prototypes using passive motion capture systems to analyze motor features from patients suffering from neurological disorders as well as for sports rehabilitation and bio-mechanic analysis.

Data Science Research Assistant, **Oct 2016–Dec 2018**
UVM SEGS Lab, Burlington,VT, USA.
Funded by the USDA. Software development and database management for experimental gaming research. Survey deployment using online recruitment tools (i.e. Amazon Mechanical Turk) to model risk in relation to the biosecurity decision process. Helped develop Agent Based Models that simulate epidemiological contagion events across supply chain networks.

Data Scientist, **2014–Oct 2016**
UVM Department of Surgery, Burlington,VT, USA.
Investigate health trends on Twitter to make socio-geographical comparisons of how sentiments surrounding self proclaimed health disparities are changing over time.

Data Science/Systems Analyst Intern, **March 2016–July 2016**
IBM Thomas J. Watson Research Center,
Yorktown Heights, NY, USA.
Data Scientist helping to build the experimental design for project Bluesky: integrating wearables and sensors into clinical trials as a contractor for Pfizer's developmental medication to treat Parkinson's Disease.
Prime role: integrating Xbox One Kinect data stream for clinical analytics.
PR: `http://fortune.com/2016/04/07/pfizer-ibm-parkinsons/`

Research Assistant, **2012–2014**
UVM Complex Systems Center, Burlington, VT, USA.
Data Science research with a focus on sentiment analysis, entropy calculations, computational linguistics, and computational social science.

Collegiate Mathematics Instructor, **2012–2014**
UVM Math Department, Burlington, VT, USA.
Create assignments, tests, course curriculum, multiple lectures per week, assign grades, Taught 5 sections of Collegiate Level Mathematics Courses

Computer Skills

Programming Experience: Python, C#, PHP, Perl, Matlab, Java, SQL, NoSQL

Data Skills: Mining, Analysis, Visualization, Data Integration, Database Management and Design, Dashboard Visualizations, Interface Design

Computation: Machine Learning, Evolutionary Computation, Time Series Analysis, Sentiment Analysis, Signal Processing, Agent Based Modeling, Natural Language Processing, Cluster Analysis

Research Development: Experimental Game Development, Online Survey Recruitment and Deployment, Survey Design

Software Tools: Unity Game Engine, Amazon Mechanical Turk, Qualtrics, Twitter API, Plotly-Dash, Anylogic, MySQL

Selected Publications

1 Eric M Clark, Scott C Merrill, Luke Trinity, Gabriela Bucini, Nicholas Cheney, Ollin Langle-Chimal, Trisha Shrum, Christopher Koliba, Asim Zia, and Julia M Smith. Using experimental gaming simulations to elicit risk mitigation behavioral strategies for agricultural disease management. *PloS one*, 15(3):e0228983, 2020.

2 Eric M Clark, Scott C Merrill, Luke Trinity, Gabriela Bucini, Nicholas Cheney, Ollin Langle-Chimal, Trisha Shrum, Christopher Koliba, Asim Zia, and Julia M Smith. Emulating agricultural disease management: Comparing risk preferences between industry professionals and online participants using experimental gaming simulations and paired lottery choice surveys. *Frontiers in veterinary science*, 7, 2020.

3 Eric M Clark, Jake Ryland Williams, Chris A Jones, Richard A Galbraith, Christopher M Danforth, and Peter Sheridan Dodds. Sifting robotic from organic text: A natural language approach for detecting automation on twitter. *Journal of Computational Science*, 2015.

4 Eric M Clark, Chris A Jones, Jake Ryland Williams, Allison N Kurti, Michell Craig Nortotsky, Christopher M Danforth, and Peter Sheridan Dodds. Vaporous marketing: Uncovering pervasive electronic cigarette advertisements on twitter. *PLoS ONE*, 2016.

5 Peter Sheridan Dodds, Eric M Clark, Suma Desu, Morgan R Frank, Andrew J Reagan, Jake Ryland Williams, Lewis Mitchell, Kameron Decker Harris, Isabel M Kloumann, James P Bagrow, et al. Human language reveals a universal positivity bias. *Proceedings of the National Academy of Sciences*, 112(8):2389–2394, 2015.