

SAMUEL STEHLE

National Centre for Geocomputation • Maynooth University
2.02 Iontas Building • Maynooth, County Kildare, Ireland
sam.stehle@mu.ie • www.linkedin.com/in/sam-stehle-58697a53 • @sam_stehle
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PROFESSIONAL EXPERIENCE

- 2017 – present **Postdoctoral Researcher**
National Centre for Geocomputation, Maynooth University
Building City Dashboards project
- 2015 – 2017 **Instructor and Teaching Assistant**
Department of Geography, Pennsylvania State University
- 2014 – 2015 **Visiting Researcher and Higher Education Research Experience Intern**
Oak Ridge National Laboratory
WorldSTAMP project
- 2013 – 2015 **Graduate Fellow**
National Science Foundation Interdisciplinary Graduate Education and Research Traineeship (IGERT)
Big Data Social Science, Pennsylvania State University
- 2013 – 2014 **Research Assistant**
Department of Computer Science, Pennsylvania State University
Social media for disaster management project
- 2011 – 2013 **Research Assistant**
Department of Geography, Pennsylvania State University
STempo project
- 2009 – 2011 **GIS Analyst**
Digitally Integrated Geographic Information Technologies Lab, The University of Utah

EDUCATION

- 2013 – 2017 **Doctor of Philosophy**, Geography, Pennsylvania State University
Mapping Semantic and Spatial Mediascapes in the Catalanian Independence Movement: Geopolitics, Sports, and Black Boxes
- 2011 – 2013 **Master of Science**, Geography, Pennsylvania State University
Pattern Matching via Sequence Alignment: Analyzing Spatio-Temporal Patterns and their Distances
- 2007 – 2010 **Bachelor of Science**, Geography, University of Utah
Minor in Computer Science, Certificates in Geographic Information Systems & Remote Sensing

PEER REVIEWED PUBLICATIONS

- Stehle, S.**, R. Kitchin. (2019) Real-time and archival visualization techniques in city dashboards. *Intl. Journal of GIS*. Online only: <https://doi.org/10.1080/13658816.2019.1594823>
- Stehle, S.** (2018) Using geodata and geolocation in the social sciences: mapping our changing world, by David Abernathy. *Intl. Journal of GIS*. 32(8): 1697-1698
- Neppalli, V.K., C. Caragea, A. Squicciarini, A. Tapia, **S. Stehle**. (2017) Sentiment analysis during Hurricane Sandy in emergency response. *Intl. Journal of Disaster Risk Reduction*. 21: 213-222
- Peuquet, D.J., A.C. Robinson, **S. Stehle**, F.A. Hardisty, W. Luo. (2015) A Method of Discovery and Analysis of Temporal Patterns in Complex Event Data. *Intl. Journal of GIS*. 29(9): 1588-1611
- Stehle, S.**, D.J. Peuquet. (2015) Analyzing Spatio-Temporal Patterns and their Evolution via Sequence Alignment. *Spatial Cognition and Computation*. 15(2):68-85
- Caragea, C., A. Squicciarini, **S. Stehle**, K. Neppalli, and A. Tapia. (2014). Mapping Moods: Geo-Mapped Sentiment Analysis During Hurricane Sandy. *Proceedings of the 11th ISCRAM Conference*. University Park, PA. 05.2014. S.R. Hiltz, M.S. Pfaff, L. Plotnick, A.C. Robinson eds.

MANUSCRIPTS UNDER REVIEW

Stehle, S. The Series With Elastic Extents Problem (SWEEP) and “Gerrymandering” Urban Time Series. Submitted to *Geoinformatica*

Kitchin, R., **Stehle, S.** Can smart city data be used to create new official statistics? Submitted to the *Journal of Official Statistics*.

PEER REVIEWED CONFERENCE PAPERS

Stehle, S. 2019. The Series With Elastic Extents Problem (SWEEP) and Gerrymandering Urban Time Series. GISRUK, Newcastle, UK. Apr 23-26

Stehle, S., R. Kitchin 2018. Visual Indicators of Real-Timeness in City Dashboards. GISRUK, Leicester, UK. Apr 17-20

Stehle, S. 2016. Who Evaluates the Evaluator? Reconsidering Validation of Classification Processes Under Big Data. NSF workshop on Geospatial Data Science in the Era of Big Data. Champaign-Urbana, IL. Jul 24-28

Stehle, S. 2015. Re-Reading Geopolitics in the News: Computation beyond Event-Based Representation. Regional Science Association International Meeting, Portland, OR. Nov 12-15

Stehle, S. 2015. News and Events, Politics and Sport: Reading Geopolitical Conveyance in Digital News Media. Conference on Spatial Information Theory (COSIT) Doctoral Colloquium. Santa Fe, NM. Oct 12-16

Stehle, S. 2013. Pattern Matching via Sequence Alignment: Analysing Spatio-Temporal Distances. GeoComputation 2013, Wuhan, China. May 23-25

Arva, B., J. Beiler, B. Fisher, G. Lara, P. A. Schrod, W. Song, M. Sowell, and **S. Stehle.** (2013). Improving Forecasts of International Events of Interest. European Political Science Association Annual General Conference, Paper 78, Barcelona, Spain, Jun 20-22

OTHER CONFERENCE PAPERS

Stehle, S., R. Kitchin 2019. Visual Indicators of Real-Timeness in Smart City Dashboards. Workshop on Trusted Smart Statistics in the Age of IoT, Eurostat, Weisbaden, DE. Jan 30-31

*Naji, J., ***S. Stehle**, G. Young. (* co-presenters). 2018. Place in Virtual Space: an analysis of geospatial data narratives presented in cross-reality visualisations. Conference of Irish Geographers, Maynooth, IE. May 10-12

Stehle, S. 2017. Geographic Data Science, Theory, and Black Boxes: Ensuring Evaluations do not ‘Speak for Themselves.’ American Association of Geographers. Boston, MA. Apr 5-9

Stehle, S. 2016. Mapping News Media’s Semantic Spaces of Catalonia’s Geopolitics of Sport. American Association of Geographers. San Francisco, CA. Mar 29-Apr 4

Stehle, S. 2015. Event Data, Spatio-Temporal Analysis, and Digital News Media: A Critical Examination. American Association of Geographers. Chicago, IL. Apr 21-25

Stehle, S. 2014. Scalar Analysis and Event Data Analytics: Assessing the Potential Contribution of Big Data for Feminist Geopolitics. American Association of Geographers. Tampa, FL. Apr 8-12

*Peuquet, D. and ***S. Stehle** * (co-presenters). 2013. STempo: An Integrated Statistical and Visualization Environment for Discovery and Analysis of Patterns in Complex Space-Time Event Data. National Geospatial Intelligence Agency (NGA) Academic Research Program (NARP) Symposium. Washington D.C. Sept 10-12

Stehle, S. 2013. A Modified Alignment Method for Matching Patterns of Spatio-Temporal Events. American Association of Geographers, Los Angeles, CA. Apr 8-14

CONFERENCE PLANNING

Open Source Software in Geography: Theories, Developments, and Pathways Toward Openness. With M. Haffner and J. Piburn. Paper session at American Association of Geographers, 2017. Boston, MA.

TEACHING

EBF 297: Information Systems for Energy Land Managers – special topic in Energy, Business & Finance

GEOG 360: Introduction to Geographic Information Systems – GIS lectures and laboratory instruction

GEOG 120: Urban Geography – urban development and sense of place; guest lectures, student evaluation

AWARDS

2nd place, E. Willard Miller research proposal award, PSU Geography, 2015

Best Presentation, NGA NARP Symposium (co-presented with D. Peuquet), 2013

Undergraduate Student of the Year, Utah Geography, 2010

GRANTS AND SUPPORT

Early Career Researcher Award, Maynooth U. Social Sciences Institute, "(Meta)Data for Decision," €3000

Travel support, NSF, attendance at Workshop on Geospatial Data Science in the Era of Big Data and Cyber GIS, U. of Illinois Urbana Champaign, August 2016, est. \$1000

IGERT Fellowship, NSF, PSU, Big Data and Social Science, tuition and stipend, est. \$54,000 for 2 years

Graduate Research and Teaching Assistance, PSU Geography, tuition and stipend, est. \$40,000 for 4 years

Graduate Enrichment Award, PSU Geography, attendance at Geocomputation, Wuhan China, 2013, \$500

NSF Application Incentive Award, College of Earth and Mineral Sciences, PSU, 2012, \$1000

Honor Roll Scholarship, College of Social and Behavioral Science, Utah, 2010, \$3000

Merrill K. Ridd Undergraduate Scholarship, Utah Geography, 2010, \$1000

SERVICE

Reviewer, PLoS One, Intl. Journal of Disaster Risk Management, Intl. Journal of GIS

Treasurer, Supporting Women in Geography, 2016/2016

Coffee Hour Committee, PSU, 2014/2015

Treasurer, Graduate Students in the Department of Geography, PSU, 2013/2014

President, Geography Undergraduate Student Advisory Committee, Utah, 2010

President, Gamma Theta Upsilon honor society, Utah, 2010

PROFESSIONAL MEMBERSHIP

Geographical Society of Ireland

Society for American Baseball Research

American Association of Geographers

SKILLS

Programming Languages: Java • Python • R

Software Proficiency: Eclipse IDE for developers • Git • ArcGIS • QGIS • R Studio

Techniques: machine learning – supervised and unsupervised classification methods

visual analytics – design and development of visual tools for multidimensional data

time series analysis – longitudinal time-based data investigation

spatial analysis – understanding and describing spatial patterns