Kenneth Allen Flagg

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Statistics Ph.D. student with interests in spatial point processes, sampling, Bayesian hierarchical models, machine learning, and statistical computing. Currently researching sampling and point process intensity estimation methodologies applicable to unexploded ordnance sites.

Education

Ph.D., Statistics, Montana State University, Bozeman, anticipated 2020, advised by Andrew Hoegh.

M.S., Statistics, Montana State University, Bozeman, May 2016, advised by Megan Higgs.

B.S., Mathematics, Applied Mathematics/Statistics Concentration, University of California, Riverside, June 2014.

A.A., Administration and Information Systems, Riverside Community College, Riverside, CA, June 2011.

A.S., Computer Programming, Riverside Community College, Riverside, CA, June 2011.

Certificate, Webmaster, Riverside Community College, Riverside, CA, June 2011.

Experience

Graduate Research Assistant, Montana State University, Bozeman, August 2016–present.
Consultant with Statistical Consulting and Research Services. Met with clients, provided statistical guidance, performed analyses, created data visualizations, wrote reports, and learned new software/methods as necessary.

Statistics Intern, Neptune and Company, Inc., Lakewood, CO, May 2016–July 2016.
Assisted Ph.D. statisticians with statistical analyses including simulation studies, environmental risk assessments, creating sampling plans, and reviewing reports.

Graduate Teaching Assistant, Montana State University, Bozeman, August 2014–May 2016.
Lead instructor for undergraduate mathematics and statistics courses, in both traditional lecture format and student-led small group activities.
Courses taught: Precalculus, Introduction to Statistics.

Data Analyst, Red9, Manhattan Beach, CA, November 2013–January 2014.
Tested and evaluated algorithms for classifying events in time series data, primarily using hidden Markov models implemented in R.

Publications

Flagg, K.A., Hoegh, A.B., Borkowski, J.J., and Higgs, M.D. 2018 *Inferring Spatial Point Intensity of Geomagnetic Anomalies from Transect Sampling.* In preparation.

Flagg, K.A, Fitzgerald, M., Higgs, M.D., and Black, P. 2018. *UCLs and Considerations of Sampling Distribution, Bias, and Variability.* In preparation.

Hoegh, A.B., **Flagg K.A.**, and Stratton, C. 2018. *Contributed comment on Article by Bradley, Holan, and Wikle.* To appear in *Bayesian Analysis.*

Flagg, K.A. 2016. *Visual Sample Plan and Unexploded Ordnance: What do we need to know to find UXO?* M.S. writing project, Montana State University, Bozeman.

Presentations

Flagg, K.A. February 2017. *The Many Mysteries of Markov Chains.* Math Graduate Seminar, Montana State University, Bozeman.

Flagg, K.A. September 2016. *In the Field: A Crash Course in Environmental Statistics.* Math Graduate Seminar, Montana State University, Bozeman.

Flagg, K.A. November 2015. *An Introduction to Computer Vision.* Math Graduate Seminar, Montana State University Math Graduate Seminar, Bozeman.

Fairbrother, J., **Flagg, K.A.**, and Kim, M. May 2014. *Image Processing: Rectangle Detection.* Department of Mathematics Undergraduate Research Presentations, University of California, Riverside.

Flagg, K.A. April 2014. *Groups in Music Theory.* Math Club, University of California, Riverside.

Flagg, K.A. January 2014. *Eigenfaces: Dimensionality Reduction for Face Recognition.* Math Club, University of California, Riverside.

Flagg, K.A. November 2013. *An Introduction to Spectral Clustering.* Math Club, University of California, Riverside.

Posters

Barbour, C.R., **Flagg, K.A.**, Lin, L.S., Mack, A.L., Powell, M.M., Tran, T.V., and Walsh, S.J. February 2018. *Reproducible research implemented through version control systems.* Conference on Statistical Practice, Portland, OR.

Lin, L.S., Banner, K.M., Barbour, C.R., **Flagg, K.A.**, Mack, A.L., Schupbach, J.A., Zhang, H. May 2017. *Developing Accurate and Useful Analyses of Health Disparities Data using Tools for Reproducible Research.* The Fourth Annual Meeting of the Mountain West CTR-IN, University of Nevada, Las Vegas.

Flagg, K.A., Barbour, C.R., Mack, A.L., Schupbach, J.A., Zhang, H. April 2017. *Statistical Consulting and Research Services: Past, Present, and Future.* Student Research Celebration, Montana State University, Bozeman.

Awards

Travel Awards

CBMS Regional Conference on Spatial Statistics travel funding, 2017

Professional Affiliations

Student Member, American Statistical Association, April 2014–present.

Software and Programming Languages

General: Bash, C/C++, Git, Python, SVN, SQL.

Document Creation: LaTeX, LibreOffice, MS Office

Mathematics: Mathematica, Matlab.

Operating Systems: BSD, GNU/Linux, MS DOS, MS Windows

Statistics: R, JAGS, Stan, SAS.

Web: JavaScript, HTML, PHP

Academic Activities

Member, Mu Sigma Rho National Honor Society, November 2013–present.

Organizer, Math Club at University of California, Riverside, October 2013–June 2014.

Treasurer, Transfer Student Association at University of California, Riverside, June 2013–April 2014.