

Eric Hare

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Department of Statistics
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Research Interests

Exploratory Data Analysis, Statistical Graphics, Statistical Computing, Statistical Models, Reproducible Research, Graphical User Interfaces

Education

Iowa State University
Statistics & Computer Science

Aug 2012 — Present

- PhD Co-Major in Statistics & Computer Science (*In Progress*)
- Master of Science in Statistics (*Received May 2014*)

University of Washington
Statistics & Computer Engineering

Sep 2008 — Jun 2012

- Bachelor of Science in Computer Engineering, Cum Laude, with Honors in Computer Engineering (*Received Jun 2012*)
- Bachelor of Science with a Major in Statistics, Cum Laude (*Received Jun 2012*)

Academic Experience

Instructor

- *Engineering Probability (STAT 231)*. Prepared syllabus, lectures, exams, course notes, homeworks, and held office hours. Responsible for 40 students.
- *Introduction to Business Statistics (STAT 226)*. Prepared lectures, exams, helped prepare course notes, homeworks, and held office hours. Responsible for 80 students.

Teaching Assistant

- *Engineering Statistics (STAT 305)*. Held office hours, graded homeworks and exams.
- *Empirical Methods for Computer Science (STAT 430)*. Held office hours, graded homeworks.
- *Applied Statistical Computing (STAT 480)*. Held office hours, graded homeworks.
- *Introduction to Statistical Computing (STAT 579)*. Held office hours, graded homeworks, assisted in creation of exams.

Research Assistant

- Analyzed bullet striation patterns for the Center for Statistics and Applications in Forensic Evidence (CSAFE) (Hofmann, H., Carriquiry, A.)
- Explored the Lineup Protocol in visual inference. Modified an automated framework for performing tests of significance with the lineup protocol, assisted others in performing experiments, with Hofmann, H., Cook, D.
- Developed statistical models and graphical summaries for Shane, J.

- (University of Washington) Developed an automated hand-tracking mechanism using OpenCV and Python to independently track two hands using a camera connected to a computer. Worked with Fox, D.

Papers

- **Hare, E.**, Buja, A., and Hofmann, H., *Manipulation of Discrete Random Variables with discreteRV*. R Journal Vol. 7 Iss. 1 (2015)
- Sieber, T., **Hare, E.**, Hofmann, H., and Treppel, M., *Biomathematical description of synthetic Peptide libraries*. PLOS One Vol. 10 Iss. 6 (2015)
- Kaplan, A., and **Hare, E.**, *Putting Down Roots: A Graphical Exploration of Community Attachment* (Accepted in Computational Statistics)
- Kaplan, A., **Hare, E.**, Hofmann, H., and Cook, D., *Can you buy a president? Politics after the Tillman Act*. CHANCE Vol. 27 Iss. 1 (2014)

Posters & Presentations

- **Hare, E.**, Kaplan, A., *intRo: Statistical Analysis Software for Teaching*. Contributed Paper, Joint Statistical Meetings, Aug 8-13, 2015, Seattle, WA, USA
- **Hare, E.**, Buja, A., and Hofmann, H., *Manipulation of Discrete Random Variables in R with discreteRV*. useR, Jul 2, 2015, Aalborg, DK
- Cook, D., **Hare, E.**, ASA Traveling Workshops, May 15-18, 2015, UCLA, Chapman University, Pfizer, California, USA
- **Hare, E.**, Kaplan, A., *intRo: Statistical Analysis Software for Teaching*. Departmental Seminar (Iowa State University), Jan 12, 2015, Ames, IA, USA
- **Hare, E.**, Sieber, T., and Hofmann, H., *A Web Application for Efficient Analysis of Peptide Libraries*. Contributed Paper, Joint Statistical Meetings, Aug 2-7, 2014, Boston, MA, USA
- Kaplan, A., and **Hare, E.**, *Putting Down Roots: A Graphical Exploration of Community Attachment*. Census Data Visualization Seminar, US Census Bureau, Sep 19, 2013, Washington, D.C., USA
- **Hare, E.**, Kaplan, A., Hofmann, H., and Cook, D., *Can you buy a president? Politics after the Tillman Act*. Poster Presentation, Joint Statistical Meetings, Aug 3-8, 2013, Montreal, QC
- Kaplan, A., and **Hare, E.**, *Putting Down Roots: A Graphical Exploration of Community Attachment*. Poster Presentation, Joint Statistical Meetings, Aug 3-8, 2013, Montreal, QC

Awards

Iowa State University

- ASA Imaging Section Student Paper Award 2016
- Ron Wasserstein Award for Best Contributed Paper in Statistical Education 2015
- ASA Computing Section Student Paper Award 2015
- Kempthorne Award for Best Student in Linear Models 2013
- ASA Data Exposition 2013 - 1st Place

University of Washington

- Explorations in Statistics Research Summer Program 2011
- University of Washington Annual Dean's List 2009-2010, 2010-2011, 2011-2012

Work experience

Omni Analytics Group
Data Scientist

Aug 2014 — Present

- Developed scripts, web applications and statistical infrastructure for numerous clients
- Created a labs page showcasing interactive statistical tools built in Shiny
- Fit statistical models to big data requiring a cluster computing infrastructure

Iowa State University

Aug 2015 — Present

Research Assistant

- Performed a statistical analysis of bullet striations to match bullets to gun barrels
- Created an interactive application to automate matching
- Analyzed statistical evidence as presented to juries

Iowa State University

Aug 2012 — Aug 2015

Teaching Assistant

TIBCO Software, Inc.

Jun 2010 — Aug 2013

Quality Assurance Intern

- Developed automated unit and system tests in the R language for TIBCO software programs
- Crafted performance and scalability tests which measure how the systems respond to varying loads
- Contributed to the design, planning, and architecture of software projects in the organization

Skills & Qualifications

- Strong knowledge of R language, Python, HTML, Javascript, Java (including Android), Objective C, C/C++, bash scripting
- Basic knowledge of SAS, Matlab, PHP, ML, Scheme, Julia
- Great communication skills and thrives in a collaborative development environment
- Conveys ideas strongly through both public speaking and writing

Leadership

- Teacher at Iowa State University R workshops, 2013-2015
- Treasurer of STATers, 2013-2014, Iowa State University Department of Statistics

References

References available upon request.