

Amy M. Crawford

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EDUCATION	Iowa State University Ph.D., Statistics, in progress Major Professor: Dr. Alicia Carriquiry M.S., Statistics, August 2017 Cumulative GPA: 3.63/4.00	Ames, IA <i>August 2015 - present</i>
	North Dakota State University B.S., Mathematics and Statistics, May 2015 Actuarial Emphasis <i>Magna Cum Laude</i> , Cumulative GPA: 3.89/4.00	Fargo, ND <i>September 2011 - May 2015</i>
RESEARCH INTERESTS	Statistical Applications in Forensic Evidence, Classification Problems, Machine Learning, Methods for Imbalanced Data, Statistics Education	
HONORS & AWARDS	<i>Best Poster</i> , Am. Academy of Forensic Sciences, Young Forensic Scientist Forum February 2018, Annual Academy Meeting <i>Graduate Presidential Scholar Program</i> , Iowa State University Fall 2015 - Spring 2017 <i>Phi Kappa Phi Honor Society</i> , North Dakota State University Chapter Fall 2014 <i>H.P. Kuang Scholarship in Statistics</i> , North Dakota State University Fall 2013	
WORK EXPERIENCE	John Deere Financial <i>Risk Analytics Intern</i> Investigate and predict fraudulent behavior on a revolving credit product using transaction data with extreme class imbalance and an element of “dataset shift”.	Johnston, IA <i>May 2016 - August 2016</i>
ACADEMIC EXPERIENCE	Iowa State University <i>Graduate Research Assistant</i> Work at the Center for Statistics and Applications in Forensic Evidence (CSAFE) on methods for a statistical approach to handwriting analysis under the supervision of Dr. Alicia Carriquiry. <i>Graduate Teaching Assistant</i> Instructor, Principles of Statistics. Prepared course notes, led weekly lectures, wrote and graded exams.	Ames, IA <i>August 2017 - present</i> <i>August 2016 - December 2017</i>

University of Minnesota

Minneapolis, MN

Summer Institute in Biostatistics

May 2014 - August 2014

Comprehensive summer training course on biostatistics with focus on mathematics, statistics, computing, and public health research.

North Dakota State University

Fargo, ND

Teaching Assistant

August 2014 - January 2015

Recitation Instructor, College Algebra.

Prepared weekly exercise problem sets, led weekly recitation sessions, and graded exams.

**PRESENTATIONS
& WORKSHOPS**

Am. Soc. of Questioned Document Examiners, Ann. Meeting

Park City, UT

Research Talk

August 2018

“Toward a Statistical and Algorithmic Approach to Forensic Handwriting Comparison”

Joint Statistical Meetings

Vancouver, BC, Canada

Research Talk

July 2018

“A Bayesian Approach to the Analysis of Handwritten Evidence”

**American Bar Association Criminal Justice Section,
Ninth Ann. Prescription for Criminal Justice Forensics Program**

New York, NY

May 2018

Research Talk

“Bringing Statistical Foundations to Forensic Handwriting Analysis”

American Academy of Forensic Sciences, Annual Meeting

Seattle, WA

Research Poster (Awarded 'Best Poster')

February 2018

“Statistical Analysis of Letter Importance for Forensic Document Examination”

STEMiversity, FAST Forensic Academy Program

Milledgeville, GA

Interactive Forensic Statistics Workshop

June 2017 and June 2018

A presentation of forensic pattern evidence and statistical applications for high school students through hands-on activities, case studies, and visual analyses.

NOBCCChE Annual Conference

Minneapolis, MN

Interactive Forensic Statistics Workshop

November 2017

An introduction to forensic pattern evidence and the role that statistics plays in the collection and interpretation of evidence through hands-on activities and case studies.

Bringing Numbers to Life Learning Community

Ames, IA

Interactive Workshop Session

October 2017 and October 2018

An interactive presentation to introduce forensic evidence examination with the use of data and statistics through activities and case studies.

Science Bound

Ames, IA

*Interactive Workshop Session**September 2017*

Science Bound is a pre-college program that encourages Iowa students of color to pursue degrees and careers in STEM. The workshop introduced forensic science through hands-on activities and discussed career paths in the field.

Precollegiate Programs for Talented and Gifted Students

Ames, IA

*Residential Summer Workshop**July 2017*

“Discovering Forensics, From the Crime Scene to the Court Room”

A week long residential academic workshop for high school students. Through hands-on activities and visual analysis students learned about evidence collection, analysis, and presentation in court.

COMPUTING
SKILLS

Expertise: R/RStudio, Shiny, \LaTeX , Markdown

Familiarity: Java, SAS, Python