

Alex Shum

CONTACT INFORMATION

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RESEARCH INTERESTS

Machine Learning, data mining, computational statistics.

EDUCATION

Iowa State University, Ames, Iowa

M.S., Statistics, May 2014.

University of Hawaii, Honolulu, Hawaii

Undergraduate/Graduate coursework in Mathematics, January 2010 to May 2012

University of Puget Sound, Tacoma, Washington

B.A., Economics, May 2008

ACADEMIC EXPERIENCE

Iowa State University, Ames, Iowa

Teaching Assistant

August 2012 to Present

- Reviewed concepts, answered student questions and graded homework.
- Stat 101 - Introduction to Statistics. (Spring 2014) - [Primary Instructor]
*Responsible for lectures, development of course notes and exams.
- Stat 226 - Business Statistics. (Fall 2013).
- Stat 401 - Statistical Methods. (Social sciences and education section, Summer 2013; Biological sciences section, Spring 2013).
- Stat 330 - Probability for Computer Scientists (Fall 2012).

University of Hawaii, Honolulu, Hawaii

Graduate Research Assistant

August 2011 to May 2012

- Construct game theoretic models of coalition formation and equilibrium concepts.
- Mathematical modeling using Mathematica.
- Funded by Air Force Office of Scientific Research (AFOSR).

Tutor/Grader

January 2010 to May 2012

- Grader for Math 307: Linear Algebra and Differential Equations.
- Tutored students in algebra, trigonometry, pre-calculus, differential and integral calculus.

PROFESSIONAL EXPERIENCE

Schneider Electric SE, Cedar Rapids, Iowa

Data Science Intern

May 2014 to August 2014

- Visualized internal company datasets using R, ggplot2, ggvis.
- Statistical analysis on engineering experiments.
- Used Rmarkdown, jekyll and shiny to build an internal MOOC for statistics.

Hawaii National Bank, Honolulu, Hawaii

Credit Analyst

December 2008 to January 2010

- Analyzed profit and loss statements and cash flow.
- Authored reports about financial status of small businesses.

PROFESSIONAL MEMBERSHIPS	<p>American Statistical Association (ASA), 2012 - present</p> <p>Institute of Mathematical Statistics (IMS), 2012 - present</p>
SKILLS	<p>Computer Programming (Github: http://github.com/ALshum):</p> <ul style="list-style-type: none"> • Java,JUnit, C,C++,Apache Hadoop, Python <p>Statistics, Numerical Analysis and Visualization:</p> <ul style="list-style-type: none"> • R, ggplot2, Matlab, Mathematica, SAS <p>Desktop Editing, Productivity Software, Other:</p> <ul style="list-style-type: none"> • Vim, Eclipse • \LaTeX, knitr, markdown • Microsoft Windows, Apple OS X and Linux
RELEVANT GRADUATE COURSEWORK	<ul style="list-style-type: none"> • Theory of Probability and Statistics I & II • Statistical Methods I, II, & III • Introduction to R Programming • Statistical Computing • Data Mining and Exploratory Data Analysis • Experimental Design • Machine Learning • Pattern Recognition • Algorithms • Data Structures