## **Alex Shum**

CONTACT INFORMATION

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**EDUCATION** 

Iowa State University, Ames, Iowa

M.S., Statistics, August 2012 - July 2014 **University of Hawaii**, Honolulu, Hawaii

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

**University of Puget Sound**, Tacoma, Washington B.A., Economics, August 2004 - May 2008

PROFESSIONAL AND ACADEMIC EXPERIENCE

Kingland Systems, Ames, Iowa

Research Assistant/Statistician

January 2015 to August 2015

- Predict defect rates using generalized linear models and machine learning methods.
- Explained statistical concepts to non-technical audience.
- Data preprocessing, cleaning and visualization on software engineering data.

#### Schneider Electric SE, Cedar Rapids, Iowa

Data Science Intern

May 2014 to August 2014 and May 2015 to August 2015

- Created an R package to interface with internal API server.
- Built data visualization front end using Shiny and Dygraphs for time series data.
- Authored an online course for statistics in R, Markdown, Jekyll and Shiny.
- Visualized internal company datasets using R, ggplot2, ggvis.
- Statistical analysis on engineering experiments.

#### Iowa State University, Ames, Iowa

Teaching Assistant

August 2012 to December 2014

- TA for Business Statistics, Probability for Computer Science, Statistical Methods.
- Primary instructor for Introduction to Statistics; responsible for exams and lectures.

## University of Hawaii, Honolulu, Hawaii

Graduate Research Assistant and Tutor/Grader

**January 2010 to May 2012** 

- Constructed game theoretic models of coalition formation and equilibrium concepts.
- Mathematical modeling using Mathematica.
- Tutored students in calculus, linear algebra and differential equations.

# 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.

Skills

Data Science and Programming (Github: http://github.com/ALshum):

Proficient: R, Java, Shiny, ggplot2, knitr, rmarkdown, Git

Basic: SQL, Hadoop, C, C++, Julia, Matlab, Mathematica, SAS

#### Open Source Contributions:

rwunderground: R package for getting historical and forecast weather data. (Available on CRAN: https://cran.r-project.org/web/packages/rwunderground/index.html).

### Awards:

2015 Prudsys International Data Mining Cup 2nd/3rd place (out of 188 teams). 2014 UseR! Data visualization contest winning team.