

Haoyang (Dennis) Liu
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EDUCATION

Grinnell College

Grinnell IA

Bachelor of Arts in Mathematic and Statistics

May 2018

- *Selected Coursework:* Algorithms and OO Design, Probability and Statistics and Statistical Modeling
- Undergraduate Statistics Project Competition Honorable Mention “What Impacts Tuition-An Examination of Institutional Control and Tuition Pricing Difference”

RESEARCH EXPERIENCE

Data Visualization and Random Forest Algorithm Design

May 2017-August 2017

Grinnell College Summer Research

Advisor: Dr. Shonda Kuiper, Mathematics and Statistics, Grinnell College

Summary: Using R to develop and maintain multiple data visualization apps, including 1. a web app for Natural Language Processing, based on text corpus obtained from Twitter and other social media; 2. a web app using New York Police Department Stop and Frisk data and crime and education data; 3. a web app visualizing error rate calculation in random forest and classification tree analysis.

Creating Multi-faceted Visualizations to Understand Reproducible Research

Jan 2017-May 2017

Grinnell College Mentored Advanced Project/Undergraduate Research

Advisor: Dr. Shonda Kuiper, Mathematics and Statistics, Grinnell College

Summary: Utilizing R and Javascript to manage large amount of data and create web app aiming at using game data to demonstrate importance of proper experimental design. Research products also include lab series on CART Analysis and comparison between *t-test* and *ANOVA*.

WORKING EXPERIENCE

Grinnell College, Department of Mathematics and Statistics

Grinnell, IA

Mentor/Teaching Assistant

Aug 2016-Dec 2016, Aug 2017 - Now

- Held weekly R help office hour
- Lead weekly mentor session/discussion session

Guest Lecturer

Sep 2017

- Lectured *Tidy Data in R* in an advanced statistical modeling class
- Mentored students on their in-class projects

Alading Bank

Shanghai, China

Risk Management Intern

June 2016-August 2016

- Maintained corporate database and generate daily and monthly corporate report using SQL
- Evaluated and modeled corporate risk level using SAS
- Built risk control model to decrease the risk level by 5%

Eastside Cannery Resort

Las Vegas, NV

Marketing Analyst Intern

May 2015-July 2015

- Analyzed sales activities and marketing campaigns by using R, with charts and explanatory texts
- Created PowerPoint presentation for executives
- Maintained company's online survey, brochures and logs

China Liberal Arts College Tour

Beijing, Wuhan, Ningbo, Shanghai

Onsite Supervisor

August 2014-August 2015

- Raised more than \$80,000 for this event.
- Coordinated with 20 admission officers from American Colleges and eight Chinese High Schools
- Increased the participant college from 15 to 20 and the participant by 15%

SKILLS

Language: Fluent in Chinese and English in both speaking and writing. Conversational in Japanese and German.
Technical: SAS, R, SQL, C, Java, Python, Tableau, Office suite, Dreamweaver, Adobe Acrobat Pro, Photoshop CS