

# Matthew J. Delhey

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## Education

**Rice University** B.A. Statistics and Philosophy, Mathematics minor; *Expected May, 2015.*

**Coursework** GPA: 3.54 Statistics GPA: 3.8

Data Mining & Statistical Learning  
Mathematical Statistics  
Database Systems

Data Analysis and Visualization  
Linear Regression & Statistical Computing  
SAS Statistical Programming

## Skills & Activities

**Programming Languages** R, SQL/Hive, Linux, C, C++, Python, SAS, Matlab.

**KTRU (Rice Radio Station)** Technical Director & Station DJ

## Experience

**TripAdvisor** *Data Scientist Intern*

May 2013 - August 2013

Evaluated the impact of television ads on website traffic, creating a robust model for traffic prediction in R, automated for individual ad assessment. The results served as the primary consideration in TripAdvisor's expansion to a national television advertising campaign.

Created "Best of" list for honeymoon hotels & cities across several countries, identifying relevant reviews through text analysis and regular expressions in Hive and creating the ranking algorithm in R.

Created NLP backend in R for Hackathon project for topic detection of restaurant reviews, resulting in a new sorting option for users.

## Projects

(Full reports and code available at [mattdelhey.com/projects](http://mattdelhey.com/projects).)

### Independent Research on Interactive Visualization Analytics

Developed Shiny (R library) web application, [flyvis.com](http://flyvis.com), in order to explore improving data analysis through the use of interactive web visualization.

Application allows users to analyze airport usage in America. In our paper we demonstrate using our application to find subsets of the dataset whose flight delays can be successfully modeled.

Presented our research which outlines both the application and the design take-aways for future interactive visualizations, receiving an A in the course.

### Participation in Kaggle competitions

Stat640: Movie Recommender – Problem similar to Netflix prize; implemented ensemble of various SVD algorithms and KNN using R and LensKit Java framework (placed 18/41).

Titanic – Ensembled & cross-validated multiple models using R and waffles (C++ framework) (placed 253/1181).

### Obama for America 2012: An Exploratory Sentiment Analysis

Sentiment analysis of President Obama's re-election campaign through its external emails and tweets in group of 3.

Responsible for scraping of data, sentiment and temporal analysis (w.r.t political events) in R; created timeline visualization of relationship between events in Obama's healthcare policy and message sentiment.