

---

## SYNOPSIS

---

Data scientist with 2+ years of experience creating statistical learning programs and data analyses in Python, R, and Node.js. Fascinated by systems and driven to create, I relish the opportunity to forge a rewarding career in an environment of professional excellence which allows me to utilize my passions for applied mathematics, statistics, economics, computer science, and problem solving.

---

## COMPETENCIES

---

### Skills

- Programming experience in Python, R, Node.js, Julia, Ruby, FORTRAN, SQL, MQL, Cypher, Excel,  $\text{\LaTeX}$ , HTML5, CSS3, Unix shell, Git
- Technical experience in statistical learning, predictive modeling, and natural language processing
- Detail-oriented, creative, quick learner, highly analytical, precise, motivated.

### Certifications

- Google Partner status: Analytics, Search, Display, Video, Fundamentals

---

## PROFESSIONAL EXPERIENCE

---

### Data Scientist

*Coolfire Studios*

Saint Louis, MO  
March 2014 — June 2016

- Developed the data science program for the Digital Engagement division
- Created scripts to rapidly collect social data from YouTube, Facebook, AdWords, and Twitter APIs, at-scale
- Visualized data and relationships with `ggplot2` and `d3.js`
- Created a classifier to predict the demographics and interests of a YouTube channel's audience based on subscriptions, likes, and comments
- Used natural language processing techniques to analyze the sentiment of and extract keywords from YouTube and Facebook comments
- Implemented a video tagging scheme to better use video retention time-series data to inform content decisions
- Created a program to quickly generate audits of business verticals on YouTube using `rmarkdown` and `knitr`
- Reverse-engineered server calls to extract historical data from YouTube videos
- Combined SSA baby name data with actuarial life tables to predict the age and gender of email list members from their first name
- Segmented Facebook audiences with graph clustering algorithms to analyze audience evolution through time
- Predicted future fluctuations in ad market prices with multivariate models to choose best time to launch campaigns
- Used linear models to estimate e-commerce revenue from social data

---

## EDUCATION

---

### Indiana University, Bloomington, IN

*Mathematics, B.A.*

Aug 2008 — Dec 2013

### Coursework

- Multivariable Vector Calculus, Linear Algebra, Probability Theory, Numerical Analysis, Real Analysis, Classical Mechanics.
- Econometrics, Financial Economics, Economics of Money and Banking, Financial Accounting, Options Pricing Theory.

---

## COMMUNITY SERVICE & LEADERSHIP

---

### Projects and Events Director

*Student Sustainability Council*

Bloomington, IN  
May 2012 — Dec 2012

- Responsible for the planning and execution of SustainIU Week 2013 and all Council-sponsored projects and events
- Managed allocation and coordination of a \$12,000 Green Initiative Grant

### Member-at-Large

*Volunteers in Sustainability*

Bloomington, IN  
May 2011 — May 2012

- Advised members of the executive committee and fulfilled the duties of Coordinator in their absence

### Coordinator

*Volunteers in Sustainability*

Bloomington, IN  
May 2010 — May 2011

- Directed meetings and serve as chief executive of ViS

### Vice President of Membership

*AΦΩ Service Fraternity*

Bloomington, IN  
May 2010 — May 2011

- Planned requisite social events, managed appointed officers and status of 100 active members

---

## HONORS & AWARDS

---

### Distinguished Service Key Award

*AΦΩ Service Fraternity – for outstanding service to Chapter and Community*

Dec 2012