Alison Kate Laine Spencer

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Experience

Data Science Fellow   **Sept 2016 - present**

Insight Data Science, New York, NY

- Created *so many cooks!* an app to identify comments suggesting ingredient additions or substitutions from posts on a popular recipe blog
- Used Python and BeautifulSoup to scrape data from 1,000 blog posts, including 200k comments, and generate a SQL database using PostgreSQL
- Classified comments using NLP and logistic regression to identify those containing suggestions for recipe modifications
- Quantified recipe popularity and rankings using sentiment analysis with NLTK and TextBlob
- Developed a front-end web app *(somanycooks.xyz)* using Flask, Bootstrap, and jQuery hosted on AWS, allowing the user to access categorized comment data and sentiment metrics

Graduate Researcher   **July 2010 - present**

Gerstner Sloan Kettering Graduate School of Biomedical Sciences, New York, NY

- Created an analysis pipeline in MATLAB and Python to analyze image data and understand how organization patterns of subcellular structures are generated *in vivo*
- Performed hypothesis tests to compare simulated distributions to experimental data using Python and SciPy and identified key differences in structure organization during development
- Designed and executed a large-scale collaborative genetic screen, generating database of nearly 1,000 independent mutants
- Planned projects and managed daily activity of three rotation students over the course of one to three months each

Education

Ph.D. in Biomedical Sciences   **Dec 2016 (expected)**
Gerstner Sloan Kettering Graduate School of Biomedical Sciences   New York, NY
Memorial Sloan Kettering Cancer Center

B.S. *cum laude* in Biochemistry with minors in Math, Chemistry   **May 2009**
University of Rochester   Rochester, NY

Skills

Programming: Python (*IPython, SciPy stack, seaborn, scikit-learn, NLTK, BeautifulSoup*), MATLAB, SQL (*Postgres*), Clojure (some experience), R (some experience)
Technical: Experimental design, machine learning, probability/statistics