# Erica J. Kim

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## SUMMARY

Recent Ph.D Graduate of the University of California, Berkeley's Biophysics program, with 8+ years of experience of designing experiments and analyzing results in advanced research settings. Versatile, creative, and efficient, with proven analytical and communication skills.

## SKILLS

- Languages: Python (including: Pandas, Numpy, Scikit-Learn, Scipy, ggplot), R, C++ (proficient), Latex, Matlab
- Databases and Technology: MongoDB, MySQL, Git, Adobe Photoshop, Adobe Illustrator

## SELECTED PROJECTS (visit firefly454.github.io for more information)

- Exploratory Analysis of Historical Loan Data from Prosper (a peer-to-peer lending marketplace). *RStudio/R*
- Predicting Persons-of-Interest in the Enron Email Dataset, using Machine Learning. *Python*

## EDUCATION

**Udacity Data Analyst Nanodegree** **Expected completion date: May 2016**

**Ph.D. in Biophysics, University of California, Berkeley** **Winter 2014**

- GPA: 3.8/4.0
- National Science Foundation (NSF) Integrative Graduate Education and Research Traineeship: 2 years full tuition + living stipend

**B.A. in Mathematics, New York University** **Spring 2008**

- GPA: 3.8/4.0; minor: Computer Science
- Presidential Honors Scholarship: 4 years full tuition

## PROFESSIONAL EXPERIENCE

**Data Science Workshop Participant** **University of California, Berkeley** **July 2015**

- Developed an accurate **prediction model for San Francisco crime classification**, using data from SF Open Data, as part of an ongoing Kaggle competition
- Placed in **top 7% in rankings** (based on log-loss error) at time of code submission

**Graduate Research Assistant** **University of California, Berkeley** **Sept 2009 – Dec 2014**

- Investigated the biomechanics of hummingbird flight, in order to elucidate the physiological limits to different flight modes
- Analyzed data (consisting of high-speed video files) by writing code to efficiently perform image analysis and aerodynamic modeling, in Matlab
- Extensively used R to carry out statistical analyses and generate publication-quality images
- Formally mentored undergraduates in the Undergraduate Research Apprentice Program (URAP)

**Graduate Student Instructor** **University of California, Berkeley** **Fall 2012**

- Integrative Biology Motor Control. Led laboratory section, guiding students through real and computer-simulated experiments

**Assistant Researcher** **Applied Math Lab, New York University** **Jun 2005 – Aug 2008**

- Designed, implemented, and analyzed experiments on the biomechanics of swimming *C. elegans*, including photolithography fabrication
- Trained graduate students from theoretical backgrounds in experimental methods of complex fluids

**Teaching Assistant** **New York University** **Fall 2006**

- General Physics I. Implemented change in department to open teaching assistant positions up to undergraduates. Subsequently, was first undergraduate teaching assistant in the physics department