

Erica J. Kim

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SUMMARY

Recent PhD 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.

EDUCATION

PhD in Biophysics, University of California, Berkeley **December 2014**

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

BA in Mathematics, New York University **May 2008**

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

SKILLS

- Languages: Python, R, C++, Latex, Matlab
- Databases and Software: MongoDB, MySQL, Git, Microsoft Office, Adobe Photoshop, Adobe Illustrator

SELECTED PROJECTS (visit [firefly454.github.io](https://github.com/firefly454) for more information)

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

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 4 graduate students from theoretical backgrounds in experimental methods of complex fluids

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

- Initiated change in physics department to be the 1st undergraduate teaching assistant for General Physics course
- Led weekly discussion session for ~20 students; held 2-hour weekly 1-on-1 office hours