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

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

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, Pandas, Numpy, Scikit-Learn, Scipy, ggplot, R, C++, Latex, Matlab
Databases and Software: MongoDB, MySQL, Git, Microsoft Excel, Adobe Photoshop, Adobe Illustrator

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

- Exploratory Analysis of Historical Loan Data from Prosper lending marketplace. *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 3D-image analysis and aerodynamic modeling, in Matlab
- Extensively used R to carry out statistical analyses and generate publication-quality images
- Formally mentored 3 undergraduates in the Undergraduate Research Apprentice Program (URAP)

Graduate Student Instructor, University of California, Berkeley **Sept 2012 - Dec 2012**

- Led laboratory section of Integrative Biology Motor Control course, guiding ~20 students through real and computer-simulated experiments as well as holding tutoring sessions

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 **Sept 2006 - Dec 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