

Carlos Xavier Hernández

Address:

Room S296
318 Campus Drive,
Stanford, CA 94305

Telephone: (973) 280-3860**Email:** cxh@stanford.edu**URL:** cxhernandez.com**Experience**

Graduate Fellow in the Biophysics Program
with Vijay Pande @ Stanford University

2013 - Present

Undergraduate Researcher at the
Center for Computational Biology and Bioinformatics
with Raul Rabadan @ Columbia University Medical Center

2010 - 2013

Undergraduate Fellow at the Department of Chemistry and Biochemistry
with James Andrew McCammon @ University of California, San Diego

2012

Undergraduate Fellow at the Department of Biochemistry and Molecular Biophysics
with Stephen Goff @ Columbia University Medical Center

2011

Education

Stanford University
Biophysics, PhD

Present

Columbia University in the City of New York
Applied Mathematics, BSc

2013

Skills

- Python | Java
- MATLAB | R | UNIX
- HTML | CSS | JavaScript | SQL
- Computational Biochemistry
- Web | Mobile Development
- Machine Learning | Data Mining

Awards

Graduate Research Fellowship
National Science Foundation

2013

ADVANCE Summer Institute Fellowship
Stanford University

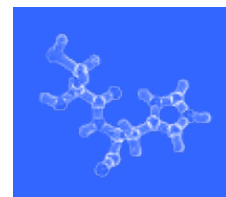
2013

Exceptional Research Opportunities Program Fellowship
Howard Hughes Medical Institute

2012

Summer Undergraduate Research Fellowship
Genentech

2011



Publications

- MSMExplorer: Data Visualizations for Biomolecular Dynamics 2017
Hernández CX, Harrigan MP, Sultan MM, and Pande VS
The Journal of Open Source Software. doi: 10.21105/joss.00188
- MSMBuilder: Statistical Models for Biomolecular Dynamics 2017
Harrigan MP, Sultan MM, **Hernández CX**, Husic BE, and Pande VS
Biophysical Journal. doi: 10.1016/j.bpj.2016.10.042
- Osprey: Hyperparameter Optimization for Machine Learning 2016
McGibbon RT, **Hernández CX**, Harrigan MP, Kearnes S, Sultan MM, Jastrzebski S, Husic BE, and Pande VS
The Journal of Open Source Software. doi: 10.21105/joss.00034
- MDTraj: a modern, open library 2015
for the analysis of molecular dynamics trajectories
McGibbon RT, Beauchamp KA, Schwantes CR, Wang LP, **Hernández CX**, Harrigan MP, Lane TJ, Swails JM, and Pande VS
Biophysical Journal. doi: 10.1016/j.bpj.2015.08.015
- Markov State Models Provide Insights 2015
into Dynamic Modulation of Protein Function
Shukla D, **Hernández CX**, Weber JK, and Pande VS
Accounts of Chemical Research. doi: 10.1021/ar5002999
- Structure-based Network Analysis 2013
of an Evolved G-Protein Coupled Receptor Homodimer Interface
Nichols SE*, **Hernández CX***, Wang Y, and McCammon JA
Protein Science. doi: 10.1002/pro.2258
- Understanding the Origins of a Pandemic Virus 2011
Hernández CX, Khiabani H, Chan J, and Rabadan R
arXiv. arXiv: 1104.4568v1 [q-bio.PE]

Press

- Pandemic Flu Risk Raised by Lax Hog-Farm Surveillance 2012
Wired Science
- The Origin and Evolution of a Pandemic Virus 2011
MAGNet Newsletter, 4:15-18

Mentorship

- Irfan Kherani 2011
Global Health and Health Policy Student @ Princeton University
Thesis: Cross-Hemispheric Phylogenetic Analysis of 2009 H1N1 Pandemic Influenza
- Ravi Vaidya 2010
High School Student
Thesis: Distinct Circulation of Influenza Virus in Geographically Diverse U.S. Air Force Installations