Frederick Robinson

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Education

2014	**Master of Arts in Mathematics**, *University of California Los Angeles*, 3.6.
2012	**Bachelor of Arts in Mathematics with Honors**, *Northwestern University*, 3.6.
	Robert R. Welland Prize for Outstanding Achievement in Mathematics by a Graduating Senior
	Honors thesis on *Persistent Homology* under David Nadler
2008	**High School Diploma**.

Research Experience

2011	**Indiana University Research Program**, *NSF funded project investigating phylogenetics with Prof. E Housworth.*
2010	**Number Theory Research**, *Researched cyclotomic integers under Prof. F. Calegari funded by NSF grant.*
2010	**Discrete and Continuous Geometry**, *Selected for and attended two week research conference at Northwestern University.*

Employment

2012-2014	**Teaching Assistant**, *University of California, Los Angeles Department of Mathematics.* Conducted recitations for undergraduate classes - Calculus, Differential Equations, C++
2010	**Physics Programming**, *Northwestern University Department of Physics and Astronomy.* Coded in C leveraging GNU Scientific Library to simulate gravitational waves from intermediate mass ratio inspiral

Computer Skills and Interests

Proficient	Go, Mathematica, Python
Basic	Java, C
Miscellaneous	Windows, Microsoft Office, Linux, LaTeX
Algorithms	Greedy optimization, divide and conquer, dynamic programming, network flows, reductions, and randomized algorithms. Computational tractability (NP-completeness).
Machine Learning	Regression: *regularization*; Neural Networks: *backpropogation*; SVMs; Unsupervised Learning: *clustering, dimensionality reduction*; Recommender Systems

Publications

Frederick Robinson and Michael Wurtz. On the magnitudes of some small cyclotomic integers. *Acta Arithmetica*, 160(4):317–32, 2013.

Languages

English	**Fluent**
Spanish	**Proficient**