

San Francisco, CA

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Frederick Robinson

Employment

- 2014-Present **Software Engineer**, *Google, Inc. - Display Ads*, Remarketing Quality.
- End to end development of a real-time bidding system calibrated by offline auction simulation algorithm
 - Built models to optimize advertiser ROI by learning advertiser-specific bidding strategies.
 - Implemented offline mapreduce based training pipeline.
 - Analyzed results using SQL queries over logs data.
 - Wrote and maintained production pipeline and monitoring.
 - Enabled additional traffic expansion and \$XXM/year revenue increase.
- 2012-2014 **Teaching Assistant**, *University of California, Los Angeles*.
Conducted recitations for undergraduate classes - Calculus, Differential Equations, C++
- 2010 **Physics Programming**, *Northwestern University*.
Simulated gravitational waves from intermediate mass ratio inspiral using C and GNU Scientific Library

Education

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

Skills

- Languages Python, C++, Go, Mathematica
- Technologies Mapreduce, Flume, Dremel SQL
- Skills Machine Learning, Data Pipelines

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*.

Publications

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