Hong Suh

575 Los Palmos Dr.
San Francisco, CA 94127
Email: hong.suh7@gmail.com
Website: hongsuh7.github.io

EDUCATION

M.A, Mathematics 2019
Specializations: Probability, PDEs
GPA: 3.85
UC Berkeley, Berkeley, CA

B.A, Pure Mathematics, cum laude 2016
GPA: 3.89 overall, 3.93 in Mathematics
Pomona College, Claremont, CA

SELECT PROJECTS

See portfolio at hongsuh7.github.io for more information on each project.

- *Robustness of Neural ODEs.* Conducted statistical experiments to test the robustness of neural ODEs against various types of adversarial attacks compared to that of regular residual neural networks.
- *Predictive model run on tennis players.* Generalized an Elo rating system for tennis players. Decreased log-loss error by about 1.5% from FiveThirtyEight's model and eliminated the need to set hyperparameters manually.
- *Stochastic homogenization for an exclusion process.* Established some quantitative bounds on the distribution of a statistic of an interacting particle system similar to the totally asymmetric simple exclusion process.
- *Fringe pairs in generalized MSTD sets.* Led a project to find new ways to construct generalized MSTD sets, which are special finite sets of integers, and found the most "extreme" classical MSTD set known at the time using our new methods.

PUBLICATIONS

- M. Asada, S. Manski, S. J. Miller, H. Suh, *Fringe pairs in generalized MSTD sets*, Int. J. Number Theory 13.10 (2017): 2653-2675.
- P. Burkhardt, A. Z.-Y. Chan, G. Currier, S. R. Garcia, F. Luca, H. Suh, *Visual Properties of Generalized Kloosterman sums*, J. Number Theory **160** (2016), 237-253.

EXPERIENCE

Math Teacher June 2019 – June 2020
Proof School, San Francisco, CA

- Created and executed lesson plans covering nonstandard math topics—such as second-semester university-level linear algebra, number theory, and discrete probability—to kids who love math.

AWARDS

- NSF Graduate Research Fellowship Honorable Mention 2016
- Hugh J. Hamilton Senior Mathematics Prize, Pomona College May 2016
- Bruce J. Levy Memorial Prize in Mathematics, Pomona College August 2015
- The Llewellyn Bixby Mathematics Prize, Pomona College August 2014

SKILLS

Probability, statistics, neural networks, R, Python, Pytorch, SQL, Mathematica, LaTeX