

Hong Suh
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Github: <https://github.com/hongsuh7>
Website/Portfolio: <https://hongsuh7.github.io>

EDUCATION

<i>Ph.D.</i> , Mathematics	on leave	<i>M.A.</i> , Mathematics	2019	<i>B.A.</i> , Mathematics, cum laude	2016
Specializations: Probability, PDEs		Specializations: Probability, PDEs		GPA: 3.89	
UC Berkeley, Berkeley, CA		GPA: 3.85		Pomona College, Claremont, CA	
		UC Berkeley, Berkeley, CA			

SELECT PROJECTS

☐ Neural network model for image classification and generation.

- Developed a new neural network architecture for image classification and generation, modifying the methodology in recent normalizing flow papers.
- *Technologies.* Pytorch, CUDA, R.

☐ Tennis win prediction model.

- Eliminated the need for human supervision by automating hyperparameter selection.
- Decreased log-loss error by about 1.5% compared to FiveThirtyEight’s model.
- *Technologies.* Python.

☐ Stochastic homogenization for an exclusion process.

- Established new quantitative bounds on the long-term statistics of a stochastic growth model, which can model infection disease growth, forest fires, crystal growth, and more.

☐ Fringe pairs in generalized MSTD sets.

- Developed new algorithm to construct generalized MSTD sets, which are special finite sets of integers.
- Discovered the most “extreme” MSTD set known at the time using the algorithm.
- *Technologies.* Mathematica.

PUBLICATIONS (AUTHORS IN ALPHABETICAL ORDER)

- 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

<i>Math Teacher</i>	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

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| • NSF Graduate Research Fellowship Honorable Mention | 2016 |
| • 3 Pomona College Mathematics Department Prizes | 2014, 2015, 2016 |

SKILLS

R, Python, Pytorch, SQL, Mathematica, L^AT_EX