

Stephen Thompson

Location: Chicago, IL 60647

Portfolio: <https://sgthompson.herokuapp.com>

Phone: (410) 688-1617 **Email:** drsgthompson@gmail.com

GitHub: github.com/SThompsonChicago **LinkedIn:** linkedin.com/in/drsgthompson

Summary Full-stack web developer and mathematician living in Chicago. PhD in applied mathematics. Over five years of experience teaching mathematics, and three years writing code. Recently finished the full stack boot camp at Northwestern University.

Technical Skills *Programming and web development*
JavaScript, Node, Python, the MERN stack, MVC design, Express, React, MySQL, Handlebars, AJAX, Git, HTML, CSS, jQuery, MongoDB, NoSQL, Visual Studio, Bulma, Bootstrap, GraphQL, C, MATLAB and Excel.

Mathematics

Differential equations, linear algebra, mathematical modeling, real analysis, optimization, numerical analysis and statistics/econometrics.

Communication

Excellent verbal communication skills from several years teaching. Excellent written communication skills, with several scholarly articles in peer-reviewed journals.

Soft skills Patient, innovative, and able to see the big picture.

Projects *Epidemic Simulator*

Single-page web application created with React. Takes in user inputs, solves a system of 400 nonlinear differential equations, and displays the results as an animation in real time as the equations are being solved.

Deployed app: <https://sthompsonchicago.github.io/pandemic-simulator/>

GitHub repo: <https://github.com/SThompsonChicago/pandemic-simulator/>

More projects: <https://sgthompson.herokuapp.com/portfolio>

Education *Certificate, Full-Stack Web Development*
Northwestern University, 2021

Doctor of Philosophy, Applied Mathematics
University of Maryland, Baltimore County (UMBC), 2013

Professional Experience	<i>Instructor, Mathematics</i>	2015-2021
	University of Maryland, Baltimore County (Baltimore, Maryland) Taught a variety of courses including ordinary and partial differential equations, linear algebra and multivariable calculus.	
	<i>High School Teacher</i>	2019-2020
	Baltimore City Public Schools (Baltimore, Maryland) Taught algebra to students at Forest Park High School.	
	<i>Affiliate Faculty</i>	2017-2019
	Loyola University, Maryland (Baltimore, Maryland) Taught a variety of undergraduate calculus courses.	
Selected publications	Thompson, S. 2022. "The total movement of this disorder is its order': Investment and utilization dynamics in long-run disequilibrium." <i>Metroeconomica</i> (accepted). Link: https://onlinelibrary.wiley.com/doi/abs/10.1111/meca.12377 Web app: https://sthompsonchicago.github.io/macro-disequilibrium/	
	Thompson, S. 2020. "Growth, external markets and stock-flow norms: a Luxemburg-Godley model of accumulation." <i>Cambridge Journal of Economics</i> 44(2): 417-443. Link: https://academic.oup.com/cje/article-abstract/44/2/417/5644063	
	Thompson, S.: 2014. "Convergence of nonlocal diffusion models on lattices." <i>Journal of Mathematical Analysis and Applications</i> 415: 1-13. Link: https://www.sciencedirect.com/science/article/pii/S0022247X14000705	
	Thompson, S. and Seidman, T. I. 2013. "Approximation of a Semigroup Model of Anomalous Diffusion in a Bounded Set." <i>Evolution Equations and Control Theory</i> 2: 173-192. Link: https://www.aims sciences.org/article/doi/10.3934/eect.2013.2.173 Web app: https://sthompsonchicago.github.io/pandemic-simulator/	