

Stephen Thompson

Location: Chicago, IL 60647

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

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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

JavaScript, Node, Python, the MERN stack, MVC design, Express.js, React.js, MySQL, Handlebars, AJAX, Git, HTML, CSS, jQuery, MongoDB, NoSQL, Visual Studio, Bulma, Bootstrap and GraphQL.

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/>

MERN Blog: Blog that allows a user to create an account, write blog posts and view posts by others. Created using the MERN stack.

Deployed app: <https://vast-mountain-43651.herokuapp.com>

GitHub repo: <https://github.com/SThompsonChicago/mern-blog>

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

Mathematics Instructor, 2015-2021

University of Maryland, Baltimore County (Baltimore, Maryland)

Developed student mastery of ordinary and partial differential equations, linear algebra and multivariable calculus. Instructed classes with up to 120 students. Oversaw two teaching assistants per semester, as well as one or more graders at a time.

High School Teacher, 2019-2020

Baltimore City Public Schools (Baltimore, Maryland)

Motivated over 60 students to understand algebra and meet graduation requirements.

Affiliate Faculty, 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." *Metroeconomica* (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." *Cambridge Journal of Economics* 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." *Journal of Mathematical Analysis and Applications* 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." *Evolution Equations and Control Theory* 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/>