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: 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.aimsciences.org/article/doi/10.3934/eect.2013.2.173
Web app: https://sthompsonchicago.github.io/pandemic-simulator/