527 West 121st Street, Apt 42a
New York, NY 10027
☎ (203) 824 7478
✉ charles.margossian93@gmail.com
github.com/charlesm93

Charles Margossian

Education

2017–present **Ph.D. Statistics**, *Columbia University*, New York, NY.

2011–2015 **B.Sci. Physics (intensive track)**, *Yale University*, New Haven, CT.

2009–2011 **Baccalauréat Scientifique**, *Ecole Jeanine Manuel*, Paris, France, Mention *très bien*.

Experience

2016–present **Core Developer**, *Stan Development Team*.

2016–2017 **Visiting Scientist**, *Metrum Research Group LLC*, Cambridge, MA.

2015–2016 **Pharmacometrics Bootcamp**, *Metrum Research Group LLC*, Tariffville, CT.

2013–2015 **Researcher**, *Yale Department of Astronomy*, New Haven, CT.

2014 **Patent Law, Technical Specialist**, *Leinweber und Zimmermann*, Munich, Germany.

Awards

2017 **Dean's Fellowship**, *Columbia Department of Statistics*.

2010 **Yale Book Award**.

Teaching Experience

March 2018 **Invited Lecturer**, *Probability and Bayes*, University of Buffalo, School of Pharmacy, PHC 506: Biometry in Pharmaceutics, Buffalo, NY.

January 2018 **Instructor**, *How to Develop for the Stan C++ Core Language*, Stan Conference 2018, Pacific Grove, CA.

April 2017 **Invited Lecturer**, *Introduction to Bayesian Data Analysis with Stan*, Harvard University, STAT 220: Bayesian Statistics, Cambridge, MA.

Fall 2018 **Teacher Assistant**, *Statistical Computing and Introduction to Data Science*, STAT 4206, Columbia University.
New York, NY

Spring 2018 **Teacher Assistant**, *Bayesian Statistics*, STAT 5224, Columbia University.
New York, NY

Fall 2017 **Teacher Assistant**, *Linear Regression Models*, STAT 4205, Columbia University. New York, NY

September 2017 **Teacher Assistant**, *Stan for Physics*, Massachusetts Institute of Technology, Cambridge, MA.

June 2017 **Teacher Assistant**, *Getting Started with Bayesian PKPD Modeling using Stan and Torsten*, Population Approach Group in Europe 26, Budapest, Hungary.

October 2016 **Teacher Assistant**, *Getting Started with Bayesian PKPD Modeling using Stan*, American Conference on Pharmacometrics 7, Bellevue, WA.

October 2015 **Teacher Assistant**, *Getting Started with Bayesian PKPD Modeling using Stan*, American Conference on Pharmacometrics 6, Arlington, VA.

2013–2015 **Peer Tutor**, *Science, Technology, And Reasearch Scholars (STARS) program*, New Haven, CT.

Presentations

July 2018 **Understanding Automatic Differentiation to Improve Performance**, Stan for Pharmacometrics Day 2018, Université Paris Diderot, School of Medicine, Paris, France.

January 2018 **Computing Steady States with Stan's Nonlinear Algebraic Solver**, Stan Conference 2018, Pacific Grove, CA.

June 2017 **L'Avenir de Stan en Pharmacométrie**, Université Paris Diderot, School of Medicine, Paris, France.

January 2017 **Differential Equations Based Models in Stan**, *Stan Conference*, Columbia University, New York, NY.

November 2016 **Differential Equations Based Models in Stan**, *Stan Meetup in Boston*, Harvard University, Cambridge, MA.

February 2016 **Practice (and malpractices!) of Bayesian Analysis**, *Metrum Journal Minute*, Tariffville, CT.

March 2015 **How Stars and Planets Interact: Testing the Effects of Close-in Giant Planets on Stellar Magnetic Activity**, *Davenport Mellon Forum*, Yale University, New Haven, CT.

June 2014 **Detecting Exoplanets**, *Ecole Jeanine Manuel (High School)*, Paris, France.

Journal Publication

[1] Joseph R Schmitt, Eric Agol, Katherine M Deck, Leslie A Rogers, J Zachary Gazak, Debra A Fischer, Ji Wang, Matthew J Holman, Kian J Jek, Charles Margossian, Mark R Omohundor, Troy Winarski, John M Brewer, Matthew J Giguere, Chris Lintott, Stuart Lynn, Michael Parrish, Kevin Schawinski, Megan E Schwamb, Robert Simpson, and Arfon M Smith. Planet Hunters. VII. Discovery

of a new low-mass, low-density planet (PH3 C) orbiting KEPLER-289 with mass measurements of two additional Planets (PH3 B and D). *Astrophysical Journal*, 795(2), October 2014.

Conference Publications

[1] Charles C Margossian. Computing Steady States with Stan's Nonlinear Algebraic Solver. In *StanCon 2018*, January 2018.

[2] Charles C Margossian and William R Gillespie. Gaining Efficiency by Combining Analytical and Numerical Methods to Solve ODEs: Implementation in Stan and Application to Bayesian PK/PD. *Journal of Pharmacokinetics and Pharmacodynamics*, 44, October 2017.

[3] Charles C Margossian and William R Gillespie. Differential Equation Based Models in Stan. In *StanCon 2017*, January 2017.

[4] Charles C Margossian and William R Gillespie. Stan Functions for Pharmacometrics Modeling. *Journal of Pharmacokinetics and Pharmacodynamics*, 43, October 2016.

Open-source Softwares

[1] Stan Development Team. *Stan: A Probabilistic Programing Language*. mc-stan.org.

[2] Charles C Margossian, William R Gillespie, and Yi Zhang. *Torsten: A Bayesian Pharmacometrics Model Library for Stan*. Metrum Research Group, https://github.com/metrumrg/example-models, 2017.

[3] Kyle T Baron, Alan C Hindmarsh, Linda R Petzold, William R Gillespie, Charles C Margossian, and Devin Pastoor. *mrgsolve: Simulation from ODE-Based Population PK/PD and System Pharmacology Models*. Metrum Research Group, https://cran.r-project.org/web/packages/mrgsolve/index.html.

Modified November 2018