GRANT FIDDYMENT

I am a mathematical modeler, software developer, and educator. Currently, I model and analyze basketball, building tools to help our coaches, scouts, sports scientists, and executives. As a graduate student, I worked with a team of clinical epilepsy researchers to develop statistical models and simulations of human seizures. I've also built biophysical neural models, analyzed biological networks with graph theory, and denoised images.

WORK EXPERIENCE

- **Manager of Research ← Data Scientist | Philadelphia 76ers**   2016 - Present
  Working with the Research & Development team, I develop predictive models and web applications to help support coaches, scouts, executives, and sports scientists

- **Adjunct Professorial Lecturer | American University**   2017 - Present
  Instructor for Predictive Analytics ITEC 621 and Python Programming ITEC 600 / 696

- **Graduate Researcher | Boston University**   2011 - 2016
  Built statistical models to analyze and understand human seizure termination

- **Graduate Teaching Assistant | University of Georgia**   2009 - 2011
  Instructor for Precalculus MATH 1113 and Calculus MATH 2200

EDUCATION

- **PhD, Computational Neuroscience | Boston University**   2016
  Point process modeling as a framework to dissociate intrinsic and exrinsic components in neural systems

- **MA, Mathematics | University of Georgia**   2011
  Comprehensive exams in numerical analysis & complex analysis

- **BS, Mathematics / AB, English | University of Georgia**   2009
  Magna cum laude with high honors

AWARDS & HONORS

- Outstanding Teaching by an Adjunct, American University Kogod School of Business   2019
- Finalist, ESPN Hackathon Open Division, Sloan Sports Analytics Conference   2016
- Pre-Doctoral Training Grant #330118, Epilepsy Foundation   2015
  ("Data-Driven Modeling of Seizure Termination")
- CompNet Travel Award, Boston University   2013
- Graduate Medical Sciences Scholarship, Boston University   2011
- Phi Beta Kappa, University of Georgia   2006
- Hollingsworth Award, Dept. of Mathematics, University of Georgia   2006

COMPUTER SKILLS

Python	JavaScript	SQL	Stan	R	Matlab
Java	Mathematica	Maple	Linux / Bash	AWS	LaTeX

Publications & Posters

- Kass RE, Amari SI, Arai K, Brown EN, Diekman CO, Diesmann, M, Doiron B, Eden UT, Fairhall AL, **Fiddyment GM**, Fukai T, Grun S, Harrison MT, Helias M, Nakahara H, Teramae J, Thomas PJ, Reimers M, Rodu J, Rotstein HG, Shea-Brown E, Shimazaki H, Shinomoto S, Yu BM, Kramer MA (2018). Computational neuroscience: Mathematical and statistical perspectives. Annual Review of Statistics and its Application 5: 183-214.
- Martinet LE, **Fiddyment GM**, Madsen JR, Eskandar EN, Truccolo W, Eden UT, Cash SS, Kramer MA (2017). Human seizures couple across spatial scales through traveling wave dynamics. Nature Communications 8: 14896.
- **Fiddyment GM** (2016). Point process modeling as a framework to dissociate intrinsic and exrinsic components in neural systems. PhD thesis, Boston University.
- **Fiddyment GM**, Sokolowski S, Kramer MA (2015). Functional Network Observations of Diseased Brain States. In Jaeger D, Jung R (Eds.) Encyclopedia of Computational Neuroscience, Vol. 1, pp 1234-1236. Springer New York Heidelberg Dordrecht London.
- **Fiddyment, GM**, Ahmed O, Martinet LE, Eden UT, Cash SS, Kramer MA (2015). Statistical and computational modeling of meso- and microscale human seizure. Society for Neuroscience Abstracts, 2015.
- **Fiddyment, GM**, Ahmed O, Martinet LE, Eden UT, Cash SS, Kramer MA (2015). Point process modeling of human seizure. Statistical Analysis of Neural Data (SAND 7) Conference Abstracts.
- **Fiddyment, GM**, Yazdanbakhsh A (2013). Large-scale, anatomically-constrained simulation of the visual hierarchy. ICCNS Abstracts, 2013.

Interests & Activities

- Point process models, generalized linear models
- Neural networks, deep learning
- Numerical analysis, high-performance computing, quantum computing
- Sports analytics, basketball, ultimate frisbee
- Saxophone, piano