Stephen Kent Bailey

Problem Solver • Model Builder • Rapid Learner • Servant Leader

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EDUCATION & SKILLS

EXP. 2018	Ph.D. in Neuroscience and Quantitative Methods, VANDERBILT
2011	B.S. in Chemistry and B.A. in Philosophy, SAMFORD
SOFTWARE	Python (esp. scipy, pandas, matplotlib, scikit-learn), OpenCV, Keras, Ubuntu, bash, git, SQL, Docker, Singularity, R, SLURM, Django, Linux, Microsoft Power BI and all Office products, LaTeX

WORK EXPERIENCE

Current 2018

DATA SCIENCE INTERN at Nashville Biosciences

Developed standardization pipelines for filtering electronic health records by drug exposure, disease classification and medical procedure.

- Leveraged Google BigQuery, Postgresql databases and the OHDSI Common Data Model to map between healthcare concepts.

2017

APPLICATION DEVELOPER at Center for Tech Transfer (Vanderbilt)

Built Python application for patent-pending "text readability" algorithm.

- Applied *natural language processing* tools to decode and parse text.
- Developed production Django web application to score and analyze documents, now used by lab researchers.

2017

Data Analyst at METRO NASHVILLE PUBLIC SCHOOLS

Created interactive dashboards on teacher vacancies, retention and demographics that transformed communication between central office staff and 130+ school leaders. 🌐

- Honed communication skills with multiple audiences, including executive leadership.

Current 2013

NIH RESEARCH FELLOW at Vanderbilt University

Designed experiments to probe brain basis of language comprehension. Used graph theory to model the human brain "connectome".

- Leveraged high performance computing cluster to streamline analyses, reducing human wait time from >1 week to <1 hour.
- Migrated lab imaging database of 13,000+ scans to web-based storage platform and overhauled identification system.
- Published analyses using machine learning to classify patients by disability based on 3D MRI data. 🌐
- Author on 8 other papers using a variety of statistical methods, including GLM, ICA/PCA, graph theory, and time-series analysis. 🌐

2013	DIRECTOR OF INSTITUTE TECHNOLOGY,
2011	MANAGER OF REGIONAL OPERATIONS at Teach For America

Managed teacher hiring and on-boarding processes, grant compliance, financial tracking and relationships with district and state partners. Delivered results within a fast-paced, start-up environment, as the region grew from supporting 30 teachers to more than 170.

- Promoted twice in two years.
- Set vision, priorities and meeting agendas for 4-person team. 🐘
- Oversaw print, copy, and technology support services to 800+ teachers during intense 5-week summer institute.
- Developed first-of-its-kind online learning course to facilitate on-boarding of new teachers, leading to top retention rates.
- Organized logistics of two week-long conferences (90+ attendees) and more than 10 other large events.

TEACHING AND PROJECTS

2018	BIOMEDICAL IMAGING ANALYSIS IN PYTHON 🐘
	Professionally-produced course on DataCamp.com
2018	REORGANIZATION OF BRAIN NETWORKS DURING LANGUAGE 🐘
	Invited talk at the 2018 Human Brain Mapping international meeting
2018	DECONVOLUTING CONVOLUTIONS: U-NETS FOR OBJECT DETECTION 🐘
	Presentation delivered to the Nashville Data Science MeetUp
2017	PRINCIPLES OF NETWORK ANALYSIS WITH NETWORKX 🐘
	Tutorial delivered at the PYTENNESSEE annual meeting
2017	Co-founder of NASHVILLE DATA NERDS MeetUp 🐘
2016	LEAD ELL INSTRUCTOR at Conexión Américas
	Volunteer instructor for course catered to immigrants and refugees
2015	Organized Vanderbilt's BRAIN BLAST outreach event 🐘
2011	CERTAINLY UNCERTAIN: Philosophy article published in *Stance* 🐘

HONORS AND AWARDS

ONGOING	Author on 9 research papers and counting 🐘
2018	Offered an INSIGHT DATA SCIENCE fellowship 🐘
2018	MOST IMPACTFUL KERNEL for KAGGLE's Data Science Bowl 🐘
2018	Finalist in Vanderbilt's 3 MINUTE THESIS competition 🐘
2016	Awarded NIH F31 NATIONAL RESEARCH Fellowship 🐘
2014	V.P. of Education for VANDERBILT TOASTMASTERS
2013	Awarded PEABODY RESEARCH FELLOWSHIP
2011	Samford University's UNIVERSITY SERVICE AWARD 🐘
2011	Samford University's GREEK MAN OF THE YEAR