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** Awarded **National Institutes of Health** and **Insight Data Science** fellowships
2011	**B.S. in Chemistry and B.A. in Philosophy, SAMFORD** Graduated **summa cum laude** and scored in 99th **percentile on GRE & SAT**
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 **data processing 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.
2018	**BIOMEDICAL IMAGE ANALYSIS INSTRUCTOR at DataCamp.com** Designed and taught professionally-produced **computer vision** course 🌍
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 retention and vacancies, transforming communication between central office and school leaders. 🌍
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	**Deconvoluting Convolutions: U-Nets for Object Detection** 🐦 Tutorial on **convolutional neural networks** at Data Science Meetup
2018	**Reorganization of Brain Networks during Language** 🐦 Invited talk at the 2018 Human Brain Mapping international meeting
2017	**Principles of Network Analysis with NetworkX** 🐦 Tutorial delivered at the PyTennessee annual meeting
2017	Co-founded **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	Published **Certainly Uncertain** (philosophy essay) in *Stance* 🐦
2010	Founded **Samford Day of Service**, a campus-wide outreach event

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**
2007	Captain of tennis, basketball and track teams