SCOTT H. FRAUNDORF

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DATA SCIENTIST

Twenty years' experience leveraging statistical models, surveys, and experiments to predict human behavior and evaluate programs. Extensive statistical and software development skills in **Python**, **R**, and **SQL**. Skilled at communicating research and data to diverse stakeholders.

TECHNICAL SKILLS

Data Acquisition: Big data, randomized experiments, survey design, eye-tracking
Data Analysis: R, Python, SQL, MATLAB, ggplot2
Statistics: Machine learning, regression, ANOVA, mixed-effect and structural equation models
Software Development: Java, Git, Subversion

EXPERIENCE

Associate Professor (tenured) University of Pittsburgh 2020 – Present
Assistant Professor University of Pittsburgh 2014 – 2020

- Designed and implemented **randomized experiments** online and in-lab. Resulted in 35 peer-reviewed articles and 56 national and international conference presentations.
- Leveraged **machine learning** and **statistical models** of human memory and language to predict student growth and evaluate educational technology.
- **Managed** 1 post-doctorate, 3 graduate, and 40 undergraduate direct reports.
- Wrote research grant proposals, obtaining **$570,646** of funding.
- Coded **open-source toolboxes** for cognitive science data collection and analysis.
- **Directed department's quantitative training**. Revised course curriculum, mentored 70 student and faculty researchers on data analysis, and taught 281 Ph.D. students in psychology, organizational behavior, computer science, and health sciences.
- Led interdisciplinary team to write white paper on using cognitive science to improve physicians' skill retention, commissioned by American Board of Medical Specialties.

Cognitive Scientist Carnegie Learning, Inc. 2012 – 2013

- Designed **adaptive computer tutors** for English grammar and implemented them in **Python** and in-house software development kit. Resulted in 3 **patents**.
- Identified common student math errors using **R** and **SQL** database of student performance to improve tutor software. Resulted in peer-reviewed publication.
- Led **interdisciplinary teams** of scientists, software developers, and educators to **develop cognitive models** for novel Step-by-Step Grammar Review product.

EDUCATION

Ph.D. in Quantitative and Cognitive Psychology University of Illinois 2012
B.A. in Psychology (*summa cum laude*) University of Oregon 2006