

Ryan T. Willett, Ph.D.

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rtwillett.github.io

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SKILLS

Hard: Python, R, SQL, Julia, HTML/CSS, \LaTeX , shell scripting, linux, Docker, AWS, Git

Techniques: graph analysis, machine learning, data visualization, data cleaning

Professional: technical/scientific writing and presentations, project management

PROFESSIONAL EXPERIENCE

Data Scientist

Gryphon Strategies, July 2020 - May 2023 — New York, NY

- Carried out ETL, analytics, and report preparation for several large lawsuits, most significantly for the plaintiffs in the National Prescription Opiate Litigation MDL under direction of the expert witness Lacey Keller (now of MK Analytics)
- Built a feature engineering pipeline and risk model for a crime gun tracing platform used by a major metropolitan police department
- Architected and developed software platforms providing workflow automation solutions for internal and external clients
- Served as internal consultant and cyber support on client investigations
- Spearheaded client engagement, scoping, and stakeholder alignment initiatives resulting in acquisition of 2 new clients for the data team
- Supervised and mentored 4 data scientists and analysts across several projects

Freelance Data Scientist and Scientific Consultant

July 2019 - July 2020 — New York, NY

- Carried out ETL, data integrity validation, and analytics on for National Prescription Opiate Litigation MDL (w/ Gryphon)
- Built a data ingestion, analytics and visualization pipeline using network graph analysis to identify concerted bot accounts on a popular social network site thought to be involved in a disinformation campaign. A total of $\sim 250,000$ accounts were analyzed
- Collaborated with the Shindell Lab at Duke University to build data visualizations and dashboards, showcased at the Climate & Clean Air Coalition Science Policy Dialogue
- Produced a data pipeline to build and render high-resolution air quality animations from hundreds of stationary and mobile sensors over a multi-year period for presentation to the U.S. House of Representatives personnel. Additional animations of these data were included in a documentary with investigators from the University of Utah.
- Carried out about 10 scientific due diligence investigations for an Austrian-based venture capital firm specializing in biotech startup investment.

Scientific Associate

Chameleon Communications, Jan 2018 - April 2019 — New York, NY

- Composed, edited, and verified the scientific accuracy of communication products based on clinical and scientific research data from pharma clients, including commercial materials and research abstracts/manuscripts/posters.
- Provided scientific and business intelligence support for several pharmaceutical brands at various stages of drug development

Research Fellow

Memorial Sloan-Kettering Cancer Center, March 2011 - Nov 2017 — New York, NY

- Discovered a novel role of a brain structure (cerebellar nuclei) on coordinating brain growth and construction of larger neuronal assemblies
- Conceived of and led an original research project, resulting in 1 research paper, one book chapter, and 2 funded research grants
- Mentored and supervised 5 student researchers and 2 research technicians

Graduate Student and Research Fellow

Columbia University, Sept 2002 - Mar 2011 — New York, NY

- Studied the role of the transcription factor GATA2 in development of the peripheral and central nervous systems
- Executed an original research project from conception to conclusion, resulting in 1 published research paper
- Developed novel tools and methodologies for manipulation of gene expression in developing rat brain, leading to 2 additional research papers with collaborators

EDUCATION

Columbia University, Ph.D. Pharmacology and Molecular Signaling

Brandeis University, B.S. in Biology (High Honors) and Biochemistry

New York Data Science Academy, Certificate in Data Science

PUBLICATIONS

3 papers and 1 book chapter. More information at <https://rtwillett.github.io/#cv>