

# TIM WEINZIRL, PH.D.

Email: [tweinzirl@gmail.com](mailto:tweinzirl@gmail.com) Phone: 510-725-9054 Online materials: [Personal projects](#), [Github](#) Status: U.S. citizen

## SKILLS

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**Programming:** Python (2006–Present), SQL (2017–Present), Scala (2023–Present), R (2015–2017), C (2003–2007)  
**Select tools:** Dash, Databricks, Docker, Git, Linux, OpenAI, OpenShift, Selenium, Snowflake, TensorFlow

## WORK EXPERIENCE

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### Data Scientist / Senior Data Scientist

First Republic Bank

San Francisco, California (June 2017 – Present)

- **Product operations:** Stood up SQL+Python data pipelines for preparing and delivering daily content (recommendations, reports) to salespersons and executives. Supported creation and measurement of bootstrapped metrics (e.g., deposit dollar growth) used to curate production pipeline content.
- **Quantitative analysis:** Made ad hoc data-driven recommendations to management, often on short notice. Produced targeted client lists for use in sales campaigns that led to millions of dollars in new deposits (e.g., the Spring 2023 CD reinstatement campaign raised **\$14M**).
- **Machine learning:** Developed models (e.g., for grading loan applications, client segmentation, fuzzy matching), satisfied model governance requirements, and deployed them as self-service web (e.g., Dash) applications.
- **Technical leadership:** Made unique contributions to infrastructure used by the broader enterprise (e.g., custom Docker images; homegrown Python packages for applying business logic, database and file I/O, fuzzy matching). Prepared, presented, and promoted resources (e.g., a **12-week** Python programming course) on best practices in programming and data science. Routinely carried out R&D to solve challenges (e.g., efficiently writing to off-prem databases, sending emails with Python on OpenShift) around the adoption of new packages or platforms. When someone had a Python question, they generally came to me first.

### Research Fellow

University of Nottingham

Nottingham, England (September 2014 – March 2017)

- Led research tasks (e.g., parameter estimation with Bayesian Markov Chain Monte Carlo techniques for **~22,000** spectra, hypothesis testing with Kolmogorov-Smirnov and chi-squared statistical tests, regression, and coding data pipelines) that facilitated **nine** (two first-author, one second-author) journal publications.

### Data Science Advisor, Software Engineer

People Analyst

Austin, TX and Remote (January 2014 – September 2016)

- **Linkedin.com web scraping:** Wrote/deployed a Linkedin web crawler with Scrapy+Selenium WebDriver. Retrieved **1,489 profiles** for persons working in the HR departments of children's hospitals across the US.
- **Company roster simulation:** Developed an R Shiny [web application](#) to simulate monthly staff rosters given organizational characteristics (e.g., size, attrition rate, gender gap).

### Graduate Research Fellow/Postdoctoral Researcher

University of Texas at Austin

Austin, TX (August 2006 – August 2014)

- Conducted scientific computing/analysis tasks (e.g., regression with parametric models, constructing mock galaxy images, interpreting real vs simulated data) to publish nine (**three first-author**) papers, earn Ph.D.
- As co-principle investigator of the international [VENGA](#) project, led five written proposals responsible for earning 101 nights (**~60%** of VENGA's total allocated time) on the 2.7m telescope at McDonald Observatory.

## EDUCATION

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### The Data Incubator

San Francisco, CA (Spring, 2017)

- During this eight-week data science **fellowship**, I received training in essential data science technologies (SQL, Python, distributed computing) and built a recommender system for learning new technical skills.

### University of Texas at Austin

Austin, TX (2006–2013)

- Ph.D. in Astronomy, 2013; M.A. in Astronomy, 2008

## AWARDS & HONORS

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- Ph.D. thesis was [published \(ISBN 978-3-319-06959-3\)](#) in 2014 as its own volume in Springer's [book series](#) for recognizing **outstanding Ph.D. research**.
- Outstanding Master's Thesis Award (**\$1,000**) in the College of Natural Science and College of Engineering at the University of Texas at Austin, 2009 (one awarded per year).