

TIM WEINZIRL, PH.D.

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

SKILLS

Programming: Python (2006–Present), SQL (2017–Present), Scala (2023), R (2015–2017), C (2003–2007)

Select tools: Dash, Databricks, Docker, Git, LangChain, Linux, OpenAI, OpenShift, Snowflake, TensorFlow

WORK EXPERIENCE

Data Scientist / Senior Data Scientist

First Republic Bank (*now part of JPMorgan Chase*)

San Francisco, California (June 2017 – Present)

- **AI:** Led the collaborative prototyping of a **LangChain agent** for automating research analyst tasks. Developed **machine learning models** (e.g., grading loan applications, client segmentation, fuzzy matching) according to model governance standards and deployed them as self-service web (e.g., Dash) apps.
- **Product operations:** **Authored/maintained** SQL+Python data pipelines for producing and delivering daily content (opportunities, reports) to salespersons and executives over web and email channels. Applied **statistical and research methods** to measure product efficacy (e.g., on deposit growth).
- **Quantitative analysis:** Quickly and accurately turned around requests for sales intelligence (e.g., targeted client lists) and ad hoc executive inquiries, often on short notice. This enabled focused sales initiatives that raised millions of deposit dollars (e.g., the Spring 2023 CD reinstatement campaign raised **\$14M**).
- **Technical leadership:** Contributed uniquely to the infrastructure of the broader enterprise (e.g., tailored Docker images; custom Python packages for data analysis, database/file I/O, fuzzy matching). Prepared/presented learning materials (e.g., a **12-week** Python course) to spread technical excellence. Routinely carried out R&D to solve challenges (e.g., I/O with cloud databases, sending emails with Python) concerning new initiatives. **When someone had a Python question, they generally came to me first.**

Research Fellow

University of Nottingham

Nottingham, England (September 2014 – March 2017)

- Produced **nine** (two first-author, one second-author) journal publications by leading research tasks such as parameter estimation with Bayesian Markov Chain Monte Carlo for remote sensing data (**~22,000** spectra), hypothesis testing & mathematical modeling, coding data pipelines, and mentoring student researchers.

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

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

- 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).