

**Ira Sharenow**  
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<http://irasharenow.com>

**Objective: Data Analyst. Open to permanent positions or contract work in San Francisco, East Bay or remote. Flexible as to position.**

## Summary

- Main skills
  - R: data wrangling with dplyr, ggplot2 for visualization; data analysis and data modeling
  - R packages: tidyverse, dplyr, magrittr, readxl, ggplot2, scales, knitr, rmarkdown, MASS, faraway, ISLR2
  - SQL: joins and subqueries
  - Data analysis, data science, statistics, mathematical modeling, predictive analytics, cluster analysis, tree methods
  - Excel, including VBA macros for Excel, complex functions, VLOOKUP, pivot tables
  - Problem solving
  - Effective communications (TA when a grad student)
- Less (or much less) experience
  - Tableau
  - Tableau Viz work samples: Please click on the links on my home page
  - Python, including pandas
  - SAS (passed advanced SAS exam 12 years ago)
- Passed first actuarial exam (statistics)
- Passed PRMIA PRM risk manager exam
- See my web site for an expository statistics paper, an R coded data mining paper, SQL code, and an Excel sampler

## Education

M.S. in Business Administration - University of Wisconsin, Madison  
M.A. in Mathematics - University of Wisconsin, Madison  
B.A. in Mathematics - Rutgers University, Newark

## Online Courses

- Tableau.com free training videos
- Udemy Tableau courses
- Stanford (Widom) online SQL courses: SQL and OLAP. Statements of Accomplishment. Scored 100% in each course.
- edX Microsoft: DAT201x Querying with Transact-SQL. Scored 100%.
- Stanford (Hastie-Tibshirani) online Statistical Learning (Data Science/Data Mining) course. Statement of Accomplishment Scored 100%
- M.I.T OCW 18.06 Linear Algebra

## Reading List

- R4DS (2e) <https://r4ds.hadley.nz/>
- Gilbert Strang *Linear Algebra*
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## **Professional Experience**

**2005 to Present**

**Independent Consultant (Various Clients) - Bay Area, California**

**Data Scientist/R Programmer**

### **Madison, WI Real Estate Agent (2/2023-3/2023)**

- Created Tableau Story
- Created line charts, bar charts, heat maps and tables
- Created calculated fields, parameters and filters to aid chart construction
- Used R and RStudio to do a statistical analysis, including regression, random forest, and boosting
- Created attractive tables with R flextable
- Performed data manipulation and analysis with a number of packages, including: tidyverse (dplyr, ggplot2), lubridate, tree, randomForest, gbm
- Used Excel to create pivot tables (with calculated fields and slicers, including timeline slicers) and pivot charts

### **Cathy Hanville (1/2023-2/2023)**

- Created Excel spreadsheets for budgeting
- Wrote complex (nested) functions

### **Vanessa Warheit for El Cerrito Council (Completed November 2022)**

- Gathered data and presented it on Excel spreadsheets
- Came up with strategy ideas.

### **NO STARCH PRESS**

- Technical Reviewer for “The Art of Machine Learning” by Norman Matloff.
- Suggested content that should be included or removed from the book.
- Reviewed the text for technical accuracy
- Identified explanations that are unclear, ambiguous, or incomplete.
- Tested all R code and noted any errors or omissions
- Followed all instructions in the book, modified code and performed operations as necessary, and noted errors.

### **Union Bank**

- Created Tableau documents

### **Alameda County Public Health Department (Completed May 2021)**

- R programmer job. Translated legacy SPSS code into R. Performed many SQL-like joins
- Wrote extensive R code in order to create a database for various life events (births and deaths)
- Spent a significant amount of time teaching staff the R programming language

### **UC Davis Computer Science Professor and author of the Art of R Programming Norm Matloff**

- Helped with editing of his online R web tutorial. Mainly gave feedback on R code and how best to explain it.

### **Dealers Assurance**

- Used R programming and regression (GLM) to analyze and model actuarial risk data – cancelations, claims rate, severity
- Used R to create a cash flow model
- Created models for IFRS 17

### **City of El Cerrito, CA (Volunteer)**

- Took the initiative to research issues and data on government and other public websites relating to El Cerrito's financial difficulties – low balance in the General Fund
- Organized data and performed analyses using R, Excel, and Tableau
- Presented results in a meeting with the mayor and city manager
- Presented results to the citizenry using Nextdoor as my vehicle
- See my website for work examples

#### **Union Bank**

- Rated 'A+' and 'exceeded expectations' by recruiting firm
- Used R and Excel to test whether the bank's data for capital assessment and stress testing (PPNR, RCT & RCI) were correctly prepared for submission to the Federal Reserve Board. Found errors in the FRB error check logic. Wrote R functions and used grep with regular expressions. Wrote complex nested Excel functions using VLOOKUP, OR, AND, and other functions. Created a users' manual and gave workshops. Taught an in-house R course via Webex. Tested R code for correctness.

#### **UC Davis Computer Science Professor and author of the Art of R Programming Norm Matloff**

- Helped with editing of his upcoming book on regression modeling, including running R code, checking statistical formulas, and organizing book chapters.

#### **University of California, SF**

- Used R, SQL, Excel and Tableau to manipulate and analyze computer repair data

#### **Art.com**

- Primary data analyst at the company, responsible for data and statistical analysis.
- Designed developed, maintained, and tested R code
- Performed numerous SQL queries in SQL Server and discovered many actionable insights
- Main Project: Statistical Analysis and model building for the Search Engine Marketing (SEM)/Pay Per Click (PPC)/Google AdWords campaign which has a budget of several million dollars per year. Database is 100 million rows. Statistical analysis/predictive analytics combined with outside the box thinking and actionable insights will save company over 1 million dollars per year.
- Statistical Methods and models: AB Testing/MVT, Binomial test, Wald Sequential Probability Ratio Test, Multiple Regression, Time Series, optimization for economic analysis
- Main tools for analyses and reporting: R, SQL, Excel, PowerPoint
- Performed a cluster analysis/market segmentation on domestic and foreign customers (millions of rows) so that firm can do targeted email campaigns

#### **Adamas Pharmaceuticals**

- Primary task was to create charts using the R programming language after obtaining data via Excel spreadsheets

#### **iQGateway**

- The company had slow running code with files containing about 500,000 rows and more than 200 columns and taking over 24 hours to run
- Worked with the consulting firm's senior data scientist, and used understanding of the gbm library and the boosting method to reduce the total run time to about an hour
- Performed testing of existing R code and then developed several code improvements
- Used SQL and Excel and other software to improve performance
- The algorithm was written in R and used SQL to retrieve data from an Oracle database

#### **Manifold Partners**

- This start up hedge fund's portfolio managers developed an investment strategy that produced large returns in a simulated investing environment. However the risk (variability) of the strategy was not known

- Used R, SQL, and Excel to first clean up and summarize the data and then wrote R code to solve the quadratic optimization problem that measured the risk

### **Albany Unified School District (Volunteer)**

- Programmed in R.
- Cleaned and manipulated data. Extracted, transformed, and loaded data from dbf files into R.
- Used SQL to transform and summarize data
- Did a regression statistical analysis.
- Wrote a report on the performance of Albany High School on the California API using the California Department of Education Database of all California public schools for years 2002-2009

### **NQuantX**

- Started with financial data in Excel spreadsheet. Then wrote R code to price financial derivatives and to evaluate portfolio manager performance using Value at Risk (VaR) and other performance measures.
- Output included R objects, results written to Excel spreadsheets, and charts written to PDF files.
- Also wrote a users' manual.

### **Excel/VBA and Other Experience**

#### **Union Bank (December 2021 – April 2022)**

- Creating Tableau charts (a main task)
- Creating some calculated fields (a main task)
- Doing some incidental work with Jira and SharePoint

#### **PayPal**

- Excel and VBA macros reporting

#### **Bank of the West**

- Helped to write an MRA concentration risk credit report that the FDIC requested. Analyzed expected and unexpected losses, probability of default (PD), loss given default (LGD) in a portfolio of loans.
- Used Excel (including Solver and Analysis ToolPak) to create a dashboard that will be used to analyze and optimize a portfolio of loans

#### **McKesson**

- Excel project. Just a four day position. I finished it in three days and was told I was the fastest to ever do the job. I was also completely accurate.
- Organized Excel spreadsheets for government reporting.
- Wrote a VBA macro that reduced a five hour task to a five second task.

#### **Community Payee Partnership**

- Excel VBA macro project
- The non-technical manager needed to have some Excel tasks automated via VBA. Then she needed technical support. Wrote the required code and then clearly explain how to use the macros.

#### **Hewlett-Packard**

- A project manager had customer data for some major hardware products in an Excel spreadsheet. However, the data was very messy and there were no IDs available for the customers. The objective was to group the data by customer and then produce a variety of summary statistics
- The problem was resolved by first writing Excel VBA macros to clean the data. Then wrote additional macros to summarize the data by customer. The code ran in under two minutes
- Developed a users' manual

## **Dolby Laboratories**

- Worked closely with director of technical support who had an Excel file filled with movie theater data from around the world that came from multiple sources. The objective was to combine data for the rows which represented the same theaters.
- Originally task was expected to be solved by hand
- Proposed an alternative solution and then implemented it by writing Excel VBA macros which took less than 5 minutes to run and which reduced the workload on the data analysts by over 200 hours
- Wrote a users' manual. Gave presentation to staff on how to use macros.

## **Deeya Energy**

- The company's controller had financial data on their products in Excel spreadsheets.
- Reduced the size of the file by over 90%

## **NetShelter Technology Media**

- Wrote Excel VBA macros that cleaned, organized and formatted spreadsheets of data that came from different marketing data sources
- Used VBA to create workbooks and worksheets and then populated them
- Used VLOOKUP tables, pivot tables, and complex functions.
- Wrote a users' manual. And gave a presentation to staff on how to use macros.

## **Scientific Learning**

- The manager of sales needed to fairly reorganize the territories of staff
- Programmed mostly with VBA macros with some SQL and R
- Used pivot tables, VLOOKUP, VBA macros and complex solve the problem

## **MV Transportation**

- The CFO had many Excel spreadsheets, some of which tracked the performance of the sales team and other spreadsheets were used for additional purposes.
- Created new, better organized spreadsheets and wrote Excel VBA macros that produced reports
- Wrote macros to generate reports

## **Coremetrics**

- Worked under the marketing manager who had an Excel spreadsheet with data for every employee.
- Traditionally each month the manager created separate spreadsheets for each employee. There were several dozen.
- Solved the problem by writing Excel VBA macros that created reports for each employee and put each report into a separate spreadsheet.
- The macros reduced eight hours of work to the click of a button.
- Also used SQL to organize the data and check accuracy of work

## **Visa**

- Worked with a risk manager. Each month the manager received reports on Excel spreadsheets. The old reports had to incorporate the new information. This was time consuming and error prone.
- Resolved the problem by writing Excel VBA macros to compare and modify spreadsheets.

## **Black Swan Risk Advisors**

- In this small start up, the CEO wished to analyze the performance of various portfolio managers and produce summary reports.
- Resolved the problem by writing Excel VBA macros that summarized risk performance.