Matt Mollison, Ph.D.

Cofounder & Chief Data Scientist at Ansaro

San Francisco, CA, USA

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Summary

Data scientist and machine learning enthusiast. Cognitive neuroscience Ph.D. rooted in experimental psychology. Enjoys learning new technologies and finding the right tool for the job. Motivated to work in areas that benefit people and society. Values clear communication and proper planning to enable effective teamwork.

Skills

Programming Languages	Python, SQL, R, MATLAB, Objective-C*, C* (* *prior experience*)
Analysis Techniques	Statistics, machine learning, natural language processing, neural networks, time series analysis, experimental design, data visualization, data munging
Tools & Technologies	Pandas, scikit-learn, statsmodels, Jupyter notebooks (strong opinion on when to use them), fast.ai, TensorFlow, PySpark, Flask, Git, AWS, GCP, HDFS

Education

University of Colorado Boulder — *Boulder, CO*

Ph.D. in Cognitive Neuroscience — *2015*

- Dissertation: Distributed practice and distributed representations: Investigating the spacing effect using EEG

Brandeis University — *Waltham, MA*

B.A. in Psychology — *2005*

- Honors Thesis: Event-related potentials in humans during spatial navigation

Experience

Ansaro — *San Francisco, CA*

Cofounder & Chief Data Scientist — *Jun. 2017 – Present*

- Main responsibilities include data science DevOps, data analysis, machine learning (supervised/unsupervised, classification/regression), communicating results, research for product content.
- Turns nebulous customer problems into concrete projects with clear goals and timelines.
- Builds tools and pipelines across the data stack, from product and feature POCs to production-level processes.
- Interprets and communicate the business trade-offs of ML model choices.
- Cares about being an awesome cofounder and teammate, and making Ansaro a place people want to work.

Freelance Consultant — *San Francisco, CA*

Data Scientist — *Mar. 2017 – Jun. 2017*

- Strategic planning for the analysis and processing/machine learning pipeline for a new mobile application.
- Executed the analysis of and predictive model building/assessment for time series sensor data collected with the app.

Code for San Francisco, Data Science Working Group — *San Francisco, CA*

Lead Scientist — *Feb. 2016 – Jun. 2017*

- Volunteer at a weekly meetup to work on and oversee projects that solve problems involving civic issues and open data.
- As a lead scientist, I help assure statistical and technical quality and help educate volunteers who are new to the group.

Silicon Valley Data Science *Mountain View, CA*

Data Scientist *Jan. 2015 – Mar. 2017*

- Trained deep neural networks (RNN/LSTM) to implement an automatic speech recognition system.
- Developed and deployed predictive models for a major global company to help them understand customer behavior (churn, purchasing patterns, fraud).
- Applied time series models to forecast sales figures for a large company that sells energy management hardware, software, and services.
- Helped develop a data strategy report for a large technology hardware manufacturing company. This involved detailing how to adapt and expand current practices around data collection to provide analytics and data services across a number of verticals.
- Co-developed an ARIMA time series modeling tutorial, presented at PyData SF 2016.

Insight Data Science *Palo Alto, CA*

Fellow *Sep. 2014 – Nov. 2014*

- Created *This Is Happening*, a website for finding social events happening now.
- Real-time event detection by streaming social media activity into a database and comparing current activity to baseline levels. Pockets of activity were used as seed locations for a clustering algorithm to label events.
- Summarized event topics using natural language processing and API calls to retrieve nearby media (Twitter, Instagram).
- Deployed the front-end using Flask, Bootstrap, jQuery, JavaScript, HTML, CSS, and AWS.

University of Colorado Boulder *Boulder, CO*

Graduate Researcher *2008 – 2015*

- Employed statistical and machine learning techniques on neural and behavioral data to assess hypotheses about memory formation, with implications for improving studying strategies in the real world.
- Communicated findings via publications and conference talks to greater psychological community.
- Developed a software package for organizing and analyzing neural data.
- Developed a software framework for running psychology experiments.
- Course instructor for *Introduction to Cognitive Psychology*.

University of Pennsylvania *Philadelphia, PA*

Lab manager and researcher *2005 – 2008*

- Programmed experiments for studying memory and spatial navigation in humans.
- Analyzed behavioral and neural data recorded during memory tasks.
- Coordinated research and lab business with collaborators (principal investigators, graduate students, and undergrads) at institutions around the US.

Brandeis University *Waltham, MA*

Undergraduate research assistant *2002 – 2005*

- Conducted an experiment investigating neural correlates of high-level perception in a spatial navigation task.
- Analyzed the above data, culminating in an honors thesis and subsequent publication.

Honors & Awards

April 2016 **2nd place team project**, Kafka Stream Data Hackathon *San Francisco, CA*

2009 **Honorable Mention**, National Science Foundation Graduate Research Fellowship

2003 – 2005 **Dean's List**, Brandeis University