

## CONSULTING EXPERIENCE

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### **Genentech (on behalf of PRO Unlimited)**

Data Engineer, Applied Data Team (20 hrs/wk)

**Vacaville, CA**

Oct 2019 - Jun 2020

Provide design expertise on next generation data engineering platform. Maintain and improve data pipelines and analytical tools. Support staff data competency development.

### **University of California Berkeley**

Data Science Consultant, D-Lab (5 hrs/wk)

**Berkeley, CA**

Oct 2019 - Dec 2019

Advise on experimental design and data analysis for faculty and graduate students at the university.

## PROFESSIONAL EXPERIENCE

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### **University of California Berkeley**

Graduate Student Reader, W261: Machine Learning at Scale (6 hrs/wk)

**Berkeley, CA**

Aug 2019 - Dec 2019

Graduate Student Reader, W207: Applied Machine Learning (6 hrs/wk)

May 2019 - Aug 2019

Primary responsibilities as a teaching assistant (TA) include helping students with questions on coursework and grading student assignments. Topics covered:

- W261: Apache Spark, Hadoop MapReduce, Google Cloud Platform
- W207: Supervised and unsupervised machine learning algorithms

### **Genentech**

Senior Engineer, Applied Data Team Lead (full-time)

**Vacaville, CA**

Oct 2018 - Apr 2019

Engineer II, Applied Data Team Lead (full-time)

May 2015 - Oct 2018

Led a data engineering and analytics team to support continuous process verification and technology transfer. Extracted and cleaned process data, summarized process performance parameters, and developed software tools for end users to interact with and perform standardized analyses. Supported initiatives that improved data-based process understanding capabilities.

- As team leader, I developed vision for laboratory and process data management, provided mentorship and design guidance to junior members, managed work portfolio, and developed business processes.
- As a contributor, I was responsible for development and maintenance of several non-validated systems including a process performance ETL and data warehouse, electronic lab ticket, OSIsoft PI time-series data historian, laboratory DeltaV SCADA system, and web-based user toolset.
- Created a user-configurable tool to execute reproducible and composable data pipelines. This tool enabled users to have ownership of the provenance and calculation of their data.
- Developed Typescript React applications for data manipulation and analysis.
- Cultivated a data culture at the site to develop acumen and infrastructure for statistical and machine learning techniques.

### **Cardinal Health (acquired AccessClosure in 2014)**

Senior Engineer (full-time)

**Santa Clara, CA**

May 2014 - May 2015

Process Development Engineer II (full-time)

Mar 2012 - May 2014

Manufacturing Engineer (full-time)

Aug 2011 - Mar 2012

Led engineering support for polyethylene glycol hydrogel fabrication processes. Developed and implemented process changes to improve product performance and manufacturability.

- Developed data system to monitor process performance and automate data analysis for root cause investigations.

### **SentrX Animal Care**

Production Engineer (full-time)

**Salt Lake City, UT**

Sep 2010 – Jul 2011

Manufactured hyaluronic acid hydrogels and PEG derivatives for medical use. Performed process and product development work as part of core team in a start-up company.

**Huntsman Cancer Institute**

Laboratory Technician, Graves Lab (40 hrs/wk)

Investigated ETS transcription factors for cancer research. Provided laboratory support and developed databases.

**Salt Lake City, UT**

Jul 2009 - Sep 2010

**Genentech**

Intern, Manufacturing Sciences and Technology (40 hrs/wk)

Provided laboratory support for CCP2 facility start-up and characterization activities.

**Vacaville, CA**

Jul 2007 - Dec 2007

**Novartis**

Lab Assistant, Manufacturing Process Sciences (40 hrs/wk)

Performed studies to select a replacement ultrafiltration (TFF) operation for protein purification.

**Emeryville, CA**

Jul 2006 - Sep 2006

**University of California Davis**

Student Assistant IV, Information Technology, Anthropology Department (16 hrs/wk)

Provided desktop and networking support to the department of Anthropology.

**Davis, CA**

Feb 2005 - Jun 2009

**EDUCATION**

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Master of Information and Data Science

University of California Berkeley, Berkeley, CA

December 2019

Bachelor of Science in Biochemical Engineering

University of California Davis, Davis, CA

March 2009

**PROJECTS**

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**Mic-Check.AI**

A platform for non-profit and socially-minded organizations to identify community leaders, topics, and sentiment on local social issues. Machine learning and graph analysis transform Twitter data for use in a React-based web portal.

**Named Entity Recognition for SEC DEF14a Filings**

This was a two-person project for Master's coursework to build an NER classifier for a novel dataset. The dataset consisted of biographical information extracted from SEC DEF14a filings. A transfer learning approach with a biLSTM was used to achieve 90% micro f1-score.

**UN OCHA - Humanitarian Data Exchange HXL Tag Prediction**

Collaborated on a project to predict metadata tags for humanitarian datasets. The model used a simple neural network and predicted based upon unstructured language data.

**SKILLS**

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Programming: Python, R, Typescript, Javascript, C#

Frameworks: React, Redux, GraphQL, Express, ASP.NET, Pandas, Scikit-Learn, Spark, Tensorflow,

Databases/systems: Oracle SQL, Neo4j, Hadoop, GCP, AWS, Firebase, OSIssoft PI, Emerson DeltaV

Data Science: Machine Learning, Graph Analysis, Natural Language Processing, Statistics (Discrete Response, Time Series, Panel Data, Causal Inference)