# **Douglas Sherman**

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 ${\tt Github.com/DSherma7/Sample\_Work}$ 

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# EDUCATION BS, Computer Science

University of California - Davis, Ca. September 2015 - May 2017 Concentration: Physics GPA 3.94

## BS, Mathematics

University of California - Davis, Ca., September 2015 - May 2017 Concentration: Scientific and Mathematical Computation GPA 3.94

# COMPUTER SKILLS

**Languages:** C, C<sup>++</sup>, Matlab, R, Python

Relevant Coursework: Machine Learning, Probability, Stochastic Processes, Combinatorics, Algorithm Analysis, Data Structures

**Skills:** Data Preprocessing and Analysis, Bayesian Inference, Multi-threaded Programming, Model/Feature Selection, Optimization Techniques

#### **EXPERIENCE**

#### Lead Data Analyst

June 2016 - Present

Davis, Ca.

Forage Genetics International

- · Responsible for Analyzing the Raw Data Generated in Inhouse Laboratory
- · Designed Polyploid Dosage Calling R Package Using Semi-Supervised Models
- · Implimented Analytical Pipeline for Marker Assisted Selection
- · Leading API Development Team for Fully Automating the Lab Experiments
- · Responsible for Implimenting GWAS, Genetic Mapping, and QTL Analysis

## Undergraduate Researcher

October 2016 - Present

UC Davis Bioinformatics Core

Davis, Ca.

- · Microbial Community Analysis Across 16S Gene
- · Developing a Novel Alignment Algorithm that Trains on CIGAR String Values
- · Creating a Python Package for Distributing the Algorithm
- · Experience with Bowtie, BWA, Samtools, Tophat, and GATK

### Undergraduate Researcher

February 2016 - July 2016

University of California – Genome Center

Davis, Ca.

- · Studied Multiple Machine Learning Models; Including LWPR, LWR, Gaussian Processes, and Neural Networks
- · Implemented a LWPR Model in both Matlab and C++
- $\cdot$  Performed Optimal Experimental Design Through Uncertainty Queries Across the Feature Space

AWARDS	Dean's List/President's Honors	2013-2016
	AMATYC: Outstanding Achievement	2015
	Materials Science Student of the Year	2015
	Academic Excellence Award	2014
	Mathematics Student of the Year	2014
	Deans List (President's Honors) 2	2013 - 2016
	Elected President, Solano Math Club 2	2013 - 2015