

ALEKS SINGER

Data Scientist / Software Engineer



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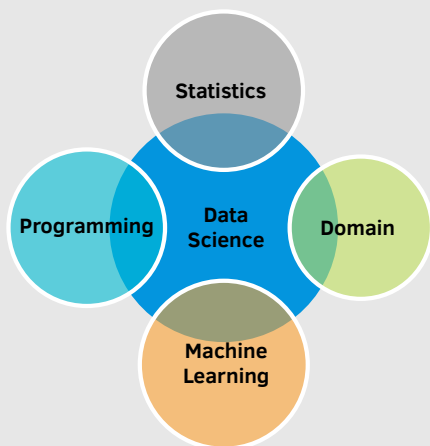
/in/alekslovesdata



alekslovesdata

Technical Skills

Overview



Programming

Low —————> High

Python • R • SQL

HTML • CSS • C++

Octave • KNIME • \LaTeX

Education

MSc., Statistical Genetics

Department: IAD/Biostatistics
University of California, Davis
2017 - 2019 | Davis, CA

BA, Environmental Studies/Anthropology

Princeton University
2011 - 2015 | Princeton, NJ

EXPERIENCE

Mar 2019 - current Adjunct Faculty of Data Science

University of San Francisco

- Teaches courses on data visualization in python and R to 80+ masters students in the MSDS data science program
- Developed curriculum focusing on interactive visualization using python packages such as plotly, bokeh, and altair.

Sep 2018 - Dec 2018 Biostatistician

Bayer Cropscience

- Developed machine vision approach to do image processing and classification on outputs of caterpillar images from microplate photometers
- Trained data science team on how to make an R package in order to build a new protocol for sharing R functions
- Wrote internal R package shared on BRAN for accessing and processing field trial data from external database SCOUT
- Explored statistical methods for MIC analysis and LD50 so that bench scientists could analyze their dose curve response data

Sep 2018 - Mar 2019 Graduate Researcher

Runcie Lab, UC Davis

- Wrote masters thesis reviewing machine learning applications for plant breeding under the supervision of Dr. Runcie.
- Ran R scripts on a computer cluster with SLURM in order to test the effectiveness of a new machine learning approach against standard BLUP approaches
- Analyzed output from these scripts and compared to outputs from genomic selection scripts written by CIMMYT researchers

Feb 2018 - Jul 2018 Research Intern: Software Engineer

CIMMYT

- In a team of 2, raised \$6,263 in funding from The Tech for Social Good Competition and RIFA to develop an R package at CIMMYT
- Worked in the Biometrics and Statistics Unit to convert the R code in the ISQG package to C++ for increased efficiency
- Helped plant breeders across divisions improve their proficiency in R

Sep 2017 - Jun 2018 Graduate Researcher

Dr. Fushing, UC Davis

- Created R package that uses a clustering algorithm to create possibly gapped histograms
- Worked on developing an ANOHT or Analysis of Histogram Analysis as a potential alternative to ANOVA analysis
- Larger project to develop new machine learning methodologies as alternatives to standard statistical methods, for histograms, time series analysis, etc.

TEACHING

Aug 2019 - Dec 2019 Instructor, Data Science

Lambda School

- Predictive Modeling and Linear Regression
- SQL, Postgresql, NoSQL
- Building web apps with python flask
- Data engineering, APIs

Jun 2018 - Jul 2019 Data Carpentry Certified Instructor

Data Carpentry, Software Carpentry

- Workshops on dplyr and tidyr at the 2-day Data Carpentry Workshop at UC Davis in June 2018
- Data Carpentry training at Genentech Aug 27-28, 2018
- Data Carpentry training at UC Davis Jan 3-4, 2019
- R workshop at Genentech July 21-22, 2019