

JoshuaGrant

Data Scientist











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 objective

to take theories, ideas, and
experiments and turn them into
production-scalable solutions

 development

Bash:	
Docker:	
HTML:	
JavaScript:	
LaTeX:	
Perl:	
PHP:	
Python:	
R:	
SQL:	

 flavors

R:	data.table	shiny
	tidyverse	vegan
	testthat	devtools
	DBI	leaflet
	httr	ggplot2
Python:	pandas	beautiful-soup
	PIL	xdgboost
	osgeo	rasterstats
SQL/DB:	MySQL	PostgreSQL
	MongoDB	Hadoop
LaTeX:	SQLite	Snowflake
	tikz	fancyhdr
	tables	booktabs
JavaScript:	node.js	angular.js
	vue.js	jQuery

 Statistics

ANOVA
Linear Regression
PCA/PCoA
Markov Chain
(Un)supervised Learning
Clustering & SOMs
Exploratory Data Analysis

Experience

Data Scientist II, Subcontractor
Oak Ridge National Laboratory, Oak Ridge, TN 2018 —Present

- Automating data ingestion of the WSTAMP webapp via the use of R, Python, Airflow, and Docker
- Authoring an R package to unify geography between online data APIs

Owner & Contractor-For-Hire
Specrabella, Knoxville, TN 2018 —2018

- Designing, developing, and deploying an interactive energy informatics web application that provides real-time calculation from machine learning derived models
- Consulting with clients on ground-up web application architecture, database and visualization needs
- Developed data ingestion methods using cURL, PHP, and R to scrape energy data from the web
- Streamlined training and development procedures using ansible, vagrant, PHP, and BASH

Bioinformatician, Project Manager, & Technical Sales Representative
Microbial Insights, Knoxville, TN 2016 —2018

- Established an automated pipeline using R, MySQL, Python, and Bash for NGS analysis, along with intranet website control written in JavaScript and Shiny
- Automated client-bound statistical calculations such as linear models, ANOVA, SOMs, clustering, PCA, and PCoA
- Developed an ETL customer data visualization tool using R, PHP, JQuery, and MySQL to view qPCR results in the context of other samples' and selected parameters
- Optimized data delivery to clients via a custom R package and local shiny applications to quickly generate LaTeX PDF reports
- Constructed, populated, and maintained an intranet wiki based using PostgreSQL and PHP to aid in project management and customer service

Graduate Research Assistant, Dr. Neal Stewart's Plant Biotechnology Lab
University of Tennessee, Knoxville, TN 2014 — 2016

- Summarized statistical findings of cell suspensions using linear models, ANOVA, and PCA
- Evaluated suspension cultures via chemical and spectral processes for lignin formation and statistically analyzed and summarized my findings for inclusion in DOE reports
- Collaborated on a novel single cell suspension and cryopreservation robotic system

Laboratory Assistant, Dr. Neal Stewart's Plant Biotechnology Lab
University of Tennessee, Knoxville, TN 2012 — 2014

- Developed automated statistical methodology for screening of lignin content and imaging of cell characteristics both in vivo and in vitro
- Extracted genomes from NCBI, cleaned and normalized the data, and performed exploratory data analysis

Education

Master of Science in Plant Sciences —Plant Molecular Genetics
University of Tennessee — Knoxville, TN — Spring 2017 — GPA: 3.72/4.0

Bachelor of Science in Plant Sciences —Biotechnology
University of Tennessee — Knoxville, TN — Spring 2014 — GPA: 3.74/4.0
Magna Cum Laude