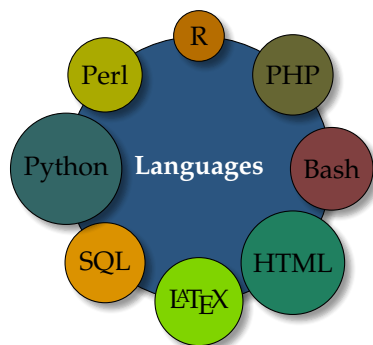# Joshua**Grant**

Bioinformatician &
Data Scientist

contact

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United States of America
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jngrant9@gmail.com ✉
notjustadatum.blogspot.com 𝐁
github.com/sempervent 🐱
linkedin.com/in/joshuanagrant in

</>programming

skills

Molecular Biology	Data Mining
Statistics	Microsoft Office
Laboratory Practices	Tissue Culture
Histology & Microscopy	Research
Woodworking	Metalworking

interests

Data Science	Genetics
Statistics	Microbiology
Machine Learning	
Automation	
Data Visualization	Electronics

Experience

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

- 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

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 LaTeXPDF 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
- Inserted and confirmed vectors in *E. coli* and *Agrobacterium*

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
- Complied with USDA-APHIS regulations regarding transgenic plants in the field and in the lab
- Implemented an *E. coli* bioreactor for production of recombinant proteins
- Screened progeny of transgenic plants via PCR

Lead Merchandiser
Stacy's Greenhouses, York, SC *2008 —2011*

- Supervised and managed other merchandiser and trained new employees
- Assisted customers with landscape designs and plant selection
- Ensured adequate inventory was displayed properly
- Provided customer service to stores and store customers

Laboratory Assistant, Dr. Paris Lambdin's Biosystematics Lab
University of Tennessee, Knoxville, TN *2002 —2012*

- Designed instructional modules in HTML and Flash
- Collected samples and data from field locations
- Assisted in community outreach programs such as BloomsDays, Buggy Buffet, and 4-H camps

Education — Master of Science in Plant Sciences — Plant Molecular Genetics