

# Nathaniel Langlois-Ackerson

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## Summary

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I am a recent graduate of UC Davis looking to begin my career in plant science. My career goals are to work in an industry that combines both science and sustainability to create plants with designed purpose. Of particular interest to me is the utilization of breeding and genetics to improve plants for both agricultural and ecological uses. Ultimately, I believe that plants have much potential for improving worldwide problems associated with climate change and lack of food security, and want to be a part of this solution. I previously worked in veterinary medicine, and feel the meticulous attention to detail I developed working as a veterinary technician will transfer well. In addition, my education thus far has taught me basic laboratory skills, allowing me to be comfortable and confident in laboratory settings.

## Education

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### University of California, Davis

Bachelor of Science in Plant Sciences, June 2019

Emphasis in Plant Breeding & Genetics

Minor in Fungal Biology and Ecology

Highest Honors

### Lab techniques familiarized with through course work:

Measurement/pipetting, basic experiment design, microscopy, spectrophotometry, titration, distillation, extraction, crystallization, NMR, IR, chromatography, plant tissue culture, agarose gel electrophoresis, DNA extraction, DNA sub-cloning, PCR, plant breeding, ELISA, fungal and bacterial culture, hydroponics, and bioinformatic analysis of data.

### Computer skills cultivated:

- Excel: basic data analysis, calculations, and graphing.
- R/RStudio: introduced to language in statistics class and used for initial statistical analysis and graphical data visualization of phenotype data in QTL mapping project.
- Python: introduced to language in basic coding class.

### Activities:

- Undergraduate Research Conference (Spring 2018):  
Presented preliminary findings from thermogenesis phenotyping project in highland adapted maize.
- Undergraduate Plant Genomics Journal Club
- SCOPE—Student Collaborative Organic Plant Breeding Education:  
Assisted tomato breeding project in seed collection and plant maintenance.

**Foothill College** | Los Altos Hills, CA

Associate of Science in Veterinary Technology, 2012  
High Honors

## **Experience**

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### **Undergraduate Research Assistant: Ross-Ibarra Lab**

Oct 2017 – Present

Currently working on QTL mapping of depth and cold tolerance during germination in BC3S6 maize population. Helped to develop experimental design for project, and implemented phenotype data collection of seed weight, germination rate, and above ground biomass. Performed initial statistical analysis of data, and am planning on performing the QTL analysis for senior thesis project

Previous projects/duties:

- Seed increase
- DNA extraction
- Prototype project: thermal imaging of highland adapted maize grown under cold conditions to observe for thermogenesis

### **Prior Work Experience as Registered Veterinary Technician:**

Animal Health Technician—San Jose Animal Care and Services

Feb 2013 – Feb 2017

Emergency & Critical Care RVT—SAGE

Dec 2014 – Dec 2016

Registered Veterinary Technician—Mid-Peninsula Animal Hospital

Feb 2013 – Oct 2014

Veterinary Assistant—Santa Clara Pet Hospital

Sep 2009 – June 2012

### Transferable Skills from Veterinary Medicine:

Attention to detail, precision/accuracy, sterile technique, teamwork, multi-tasking, time management, dimensional analysis, microscopy, work place safety, resourcefulness, comprehensive record keeping, and effective communication/client education.

## **Scholarships & Awards**

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Department of Plant Sciences Citation for Outstanding Performance (2019)

Stephen and Mary Birch Scholarship (2018 – 2019)

George W. Pierce Scholarship (2018 – 2019)

Provost Undergraduate Fellowship (Spring 2018)

2nd Lt Warren R Salz Memorial Scholarship (2017 – 2018)

PLS 152 Group Award for Best Crop Improvement Design (Fall 2017)