

# Kenia Estefania Segura Abá

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## EDUCATION

**The University of Texas at Austin**, Austin, TX  
Bachelor of Science in Biochemistry  
Certificate in Scientific Computation and Data Science

Fall 2016 - Spring 2019

## SKILLS

**Laboratory:** Algal and Fungal culturing, plant/fungal metabolite extraction for HPLC-Q-TOF-MS analysis, derivatization for GC-MS analysis of lipids, algal lipid extraction, Thin Layer Chromatography  
**Programming:** R (intermediate), Python 3 (intermediate), BASH (beginner), C (beginner), LaTeX (beginner)  
**Language:** English (Native), Spanish (Native), French (Intermediate)

## RESEARCH EXPERIENCE

**Bioprospecting Stream**, UT Austin, under Dr. Moriah Sandy  
Undergraduate Research Assistant

Spring 2017 - current

- Research symbiotic relationship between fungal endophytes and the native C4 plant *Panicum virgatum* (switchgrass) from the Central Texas rain gradient for understanding the affect water treatment, fungal treatment, and age have on the plant host's physiological response.
- Untargeted metabolic profiling using mass spectrometry and analyzing raw chromatogram data using R and XCMS.
- Presented research on an optimized metabolite extraction method at the Spring 2018 Undergraduate Research Forum at UT Austin.

### Student Mentor

- Collaborate with Dr. Moriah Sandy and undergraduate mentors weekly.
- Communicate with and advise mentees on laboratory safety, protocols, and research related inquiries.

**Shachar-Hill Lab**, under Dr. Yair Shachar-Hill, MSU, East Lansing, MI  
Summer 2019

- Curated a list of lipid genes for the model alga *Chlamydomonas reinhardtii*.
- Identified candidate triacylglycerol lipase genes involved in lipid degradation during recovery from nitrogen deprivation and characterized their lipid phenotype under a range of conditions, including nitrogen replete, nitrogen deprived, and nitrogen resupplied.
- Presented research at the 10<sup>th</sup> annual Mid-Michigan Symposium for Undergraduate Research Experiences in July.

**Hawkes Lab**, under Dr. Christine Hawkes, Austin, TX  
Undergraduate Research Assistant

Summer 2018

- Conducted laboratory and field experiments on *P. virgatum* crops for investigation of drought response in the presence of characterized individual fungal endophytes.
- Presented research at the Spring 2019 Undergraduate Research Forum at UT Austin.

## HONORS AND AWARDS

Texas Institute for Discovery Education in Science (TIDES) Fellow  
Michigan State University Plant Genomics Fellow

Summer 2018  
Summer 2019