Matthew T. Pileggi

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Education

Master of Science. University of Florida. Gainesville, FL

• Major: Entomology

• Current GPA: 3.54

Bachelor of Science. University of Florida. Gainesville, FL

• Major: Biology

• Cumulative GPA: 3.0

Associates in Arts. Valencia College. Orlando, FL

• Graduated GPA: 3.6

Research Experience

Molecular Biology and Bioinformatics

Graduate Assistant

2017 - present

- Insect-Microbiome Interactions Lab Dr. Adam C.N. Wong
- Microbiome discovery
- Using cutting-edge sequencing technology and bioinformatic tools to explore previously uncharacterized bacterial genomes

Conservation Biology

Undergraduate Research Assistant

2016 - 2017

- Biodiversity Informatics Lab Dr. Robert Guralnick
- Investigated species response to environmental changes
- Reviewed specimen descriptions using digital entries retrieved from the New York Botanical Garden
- Translated textual locality description into a numerical description of that place so that it can be mapped and further investigated

DNA Barcoding

Undergraduate Research Assistant

2016

- Student led research project Supervised by Dr. Eunice Laurent
- Investigated taxonomy of various species available at the Valencia College greenhouse
- Identified sequences in database using BLAST
- Visualized results using a phylogenetics tree

Publications

Pileggi, M. T., Chase J.R., Kaufman, P.E., and Wong, A.C.N. (2019) "Influence of Host Parameters on Prevalence and Co-Occurrence of Antibiotic Resistant Bacteria in Livestock Associated Flies in Florida" *In preparation*.

Professional training

- Bioinformatics Workshop
- Confocal fluorescence microscopy
- 10X Genomics Single Cell Transcriptomics

Mentoring Experience

University of Florida

Primary Mentor & Supervisor to:

Juliana Licata, Undergraduate Researcher	2019
Michael Costa, Undergraduate Researcher	2018
John R. Chase, Undergraduate Researcher	2018-2019
Currently: Lab technician in the Oral Biology Lab - Dr. Burne	
Jordan Henderson, Undergraduate Researcher	2018-2019
Currently: Lab technician in the Veterinary Entomology Laboratory -	Dr. Kaufman

Professional Society Memberships

Florida Entomological Society American Society of Microbiology

Skills/Experience

- Microsoft Office Suite
- Culture-based microbial techniques
- Microscopy Dissection, flourecent, and confocal microscopy
- Insect dissection Gut dissection and isolation
- Molecular techniques
- Data analysis and visualization using R
- High-throughput sequencing Nanopore minion sequencing
- Implementing bioinformatic pipelines for NGS data analysis
- Manuscript preparation