

## **Research Interests**

Broad interests in marine molecular genetics. Ideal research setting is reef systems with a focus on coral resilience, coral symbiosis, and the human impact on reef ecosystems.

## **Education**

### **B.Sc. in Environmental Science and Geography**

May 2020

University of Maryland, Baltimore County/Baltimore, MD

**Cumulative GPA:** 3.4/4.0, **Major GPA:** 3.6/4.0, **Deans List:** Fall 2019 & Spring 2020

**Relevant Coursework:** Marine & Environmental Biotechnology, Watershed Science & Management, Environmental Science Lab & Field Research, Advanced Applications for GIS, Ecohydrology, Ecology, Geomorphology, Biological Statistics, Calculus

## **Professional Experience**

### **Lab Technician**

January 2021-Current

Institute of Marine and Environmental Technology/Baltimore, MD

- ✦ **Position Summary:** Preparing algal strain cultures, processing samples for analysis

### **Seasonal State Park Ranger**

June 2020-December 2020

Maryland DNR, Patapsco Valley State Park/Halethorpe, MD

- ✦ **Position Summary:** Monitoring and mitigating pollution into local water resources while facilitating stewardship habits by park patrons

### **Research Assistant**

May 2020-Current

U.S. Forest Service, Baltimore Field Station/Baltimore, MD

PI: Dr. Nancy Sonti

- ✦ **Research Focus:** Updating and analyzing Baltimore's GIS map of the hundreds of civic groups contributing to environmental stewardship citywide

### **Undergraduate Laboratory Research Assistant**

June 2017-May 2020

Biology Department, UMBC/Baltimore, MD

PI: Dr. Stephen Miller

- ✦ **Research Thesis:** Increasing Inorganic Carbon Uptake in *Chlamydomonas reinhardtii* by Overexpressing Carbon Sequestering Genes

### **Research Assistant and Audio Transcriber**

April 2019-October 2019

The Cary Institute of Ecosystem Studies/Millbrook, NY

PI: Dr. Amanda Phillips

- ‡ **Research Focus:** Interviewing and studying Baltimore City resident's perceptions on green stormwater infrastructure

**Volunteer Student Researcher**

November 2016-March 2017

Baltimore City Community College/Baltimore, MD

PI: Dr. Amrita Madabushi & Kathleen Berlyn

- ‡ **Project Focus:** Identification and PCR analysis of microbes in three sampled Baltimore Harbor watershed sites and their implication on water waste sources.

**Conservation Intern**

June 2016-August 2016

National Aquarium/Baltimore, MD

- ‡ **Internship Focus:** Exploring conservation through experiences with species monitoring, ecological research, environmental education, policy, and citizen science

**Presentations**

Increasing Inorganic Carbon Uptake in *Chlamydomonas reinhardtii* by Overexpressing Low CO<sub>2</sub> Inducible Protein, LCI1

Poster Presentation, February 22<sup>nd</sup>, 2018,

2<sup>nd</sup> place award in presentation category

Emerging Researchers National Conference

Overexpression of Two Carbonic Anhydrase Enzymes to Amplify Algal Cell Growth

Poster Presentation, August 8<sup>th</sup>, 2018

18<sup>th</sup> Summer Undergraduate Research Fest

Baltimore Harbor Watershed Microbial Assessment

Poster presentation, November 1<sup>st</sup>, 2017

Deans award in biotechnology category

5<sup>th</sup> Annual Biotech Symposium

**Skills and Additional Training**

**Molecular Biology/Microbiology** – bacterial cloning, DNA extraction & purification, designing primers and constructs, restriction digests, gel electrophoresis, PCR, protein extraction, western blot, spectrophotometry, cytometry (basic)

**Environmental Science** – soil, trace gas, and hydrologic sampling, excel data keeping, GPS navigation & point collection, environmental education

**General Research** – algal cultivation, human research certified, photography and digital editing

**Computer** – Microsoft Office, 50wpm, text transcription, ArcGIS, QGIS, R (basic), Python (introductory), Github (intermediate)

**Languages** – English (primary), Spanish (basic)

**Maryland Boating License**  
Boating Safety Course, Maryland DNR/Maryland

July 2020

**Open Water Diver Certification**  
PSAI SCUBA course, up to 66ft/18m

October 2019

### **References**

**Dr. Stephen Miller**  
University of Maryland, Baltimore County/Baltimore, MD  
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**Dr. Colleen Burge**  
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**Dr. Amanda Phillips de Lucas**  
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