

■ nwgiebink@gmail.com | • nwgiebink | • nwgiebink

Aspiring Data Scientist, Scientific Researcher, Insight Communicator

## Skills

#### **Programming**

R, Python, Bash

#### Data Science

Machine Learning, neural networks, natural language processing, User Interface (UI) design, data mining, data cleaning, big data, statistics, Bayesian statistics, geospatial analysis, Tidyverse, Pandas, Numpy, Scikit-Learn, Pytorch, Keras

#### **Software & Version Control**

LINUX, GIT, GITHUB, DOCKER, JUPYTER NOTEBOOKS, GOOGLE COLAB, OFFICE, G SUITE

# Education

University of Arizona Tucson, AZ

Master of Science - Information Fall 2020 - Fall 2021 (expected)

University of Arizona Tucson, AZ

MASTER OF SCIENCE - ECOLOGY AND EVOLUTIONARY BIOLOGY

#### **University of Wisconsin - La Crosse**

Bachelor of Science - Biology, minor: Psychology 2017

## **Experience**

#### The Ecostructure Project

Virtual

Spring 2020

La Crosse, WI

INDEPENDENT CONTRACTOR - DATA SCIENTIST

Jan. 2020 - present

• Create web user interface in Shiny (R) appropriate for non-technical users to explore complex marine models with graphics and animations; leverage and wrangle big data (>200 GB)

#### University of Arizona, Eller College of Management

Tucson, AZ

MBA Advanced Consulting Project - Intel Corporation

Aug. - Dec. 2020

• Identify future trends, competitive landscape, and recommend strategy for Intel Corporation in rapid growth, emerging technology market

### University of Arizona, Biosemantics Research Group

Tucson, AZ

RESEARCH ASSISTANT

Aug. 2020 - present

• Visualize complex relationships and terminology for bioinformatics web ontology; Analyze plant specimen measurments with machine learning and text mining tools to build custom color palette for UI

#### University of Arizona, Burleson Lab

Tucson, AZ

RESEARCH INTERN

May - Aug. 2020

 Assess cloud-based computing architectures while training Pytorch object detection models on custom data; Evaluate interactive, virtual blackboard-style learning software written in Javascript.

## **University of Arizona, Prudic Lab**

Tucson, AZ

GRADUATE RESEARCHER

2019 - 2020

• Predict the habitable ranges of pollinators using MaxEnt machine learning models trained on community science data

#### University of Arizona, Papaj Lab

Tucson, AZ

GRADUATE RESEARCHER

2017 - 2020

 Contribute conceptual strategy and research assistance in projects involving animal learning and cognition, plant-pollinator interactions, and bioacoustics

#### University of Wisconsin - La Crosse, Pupating Lab

La Crosse, WI

Undergraduate Researcher 2016 - 2017

· Dean's Distinguished Fellow and Undergraduate Research and Creativity Grant recipient for honey bee sleep research with Dr. Barrett Klein

UA Science: Sky School

Tucson, AZ

**INSTRUCTOR** 2019-2020

• Mentor primary school students through cross-disciplinary, inquiry-based science projects and hands-on data analysis and coding lessons

University of Arizona Tucson, AZ

Graduate Teaching Assistant 2017 - 2020

Design curriculum and lab activities; teach lab and discussion sections; engage students with active learning; supervise field trips

#### **University of Wisconsin, La Crosse**

La Crosse, WI

BIOLOGY TUTOR 2014 - 2017

Promote student success in science, writing, presentations, group work, data and statistics, and study techniques. Empower self-directed learning through active learning approaches

# **Contributed Workshops**

#### **ResBaz Tucson**

Data Mining with Spotify
May, 2020

· Workshop instructor; topics: API, data wrangling, machine learning

#### **UA Data Science Institute**

SOFTWARE CARPENTRY WORKSHOP February, 2020

· Assistant; topics: Git, Bash, Python, Jupyter Notebooks

## Relevant Coursework

### **PROGRAMMING**

**Bayesian Statistics** 

**Neural Networks** 

Data Mining and Discovery

Statistical Natural Language Processing

R Programming

Intro to Modeling in Biology

#### MATH AND STATISTICS

**Ecological Forecasting** 

**Elementary Statistics** 

Quantitative Methods in Ecology

AP Calculus

Precalculus

# **Publications**

Russell, A.L., Kikuchi, D.W., **Giebink, N.W.**, & D.R. Papaj. (2020). Sensory bias and signal detection tradeoffs maintain intersexual floral mimicry. Philosophical Transactions B special issue.

De Luca, P. A., **Giebink, N.**, Mason, A. C., Papaj, D., & Buchmann, S. L. (2018). How well do acoustic recordings characterize properties of bee (Anthophila) floral sonication vibrations? Bioacoustics, 1–14.