Noah Giebink

University of Arizona

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Data Scientist, Scientific Researcher, Insight Communicator

Skills

Programming

R, Python, Bash

Data Science

Machine learning, neural networks, natural language processing, computer vision, image processing, User Interface (UI) design, data mining, data cleaning, big data, statistics, Bayesian statistics, geospatial analysis, Tidyverse, Pandas, Numpy, Scikit-learn, Pytorch, Keras/Tensorflow

Software & Version Control

Linux, Git, Github, Docker, Jupyter Notebooks, Google Colab, Google Cloud Platform, Office, G Suite

Education

University of Arizona — *Tucson, AZ*

Master of Science - Information — *Spring 2021 (expected)*

University of Arizona — *Tucson, AZ*

Master of Science - Ecology and Evolutionary Biology — *Spring 2020*

University of Wisconsin - La Crosse — *La Crosse, WI*

Bachelor of Science - Biology, minor: Psychology — *2017*

Experience

Data Science and Consulting

The Ecostructure Project — *Virtual*

Independent Contractor - Data Scientist — *Dec. 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 spatial 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 agile strategy for Intel Corporation in rapid growth, emerging technology market

Research

University of Arizona, Biosemantics Research Group — *Tucson, AZ*

Research Assistant — *Aug. 2020 - present*

- Visualize complex relationships and terminology for bioinformatics web ontology; Develop automated image processing pipeline that significantly increased the efficiency and quality of our work; Analyze plant specimen measurements 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*

- Train Pytorch computer vision models on custom data in a cloud/linux environment; develop image data pipelines in python and bash; assess cloud-based computing architectures; evaluate educational software written in Javascript.

University of Arizona, Prudic Lab — *Tucson, AZ*

Graduate Researcher — *2019 - 2020*

- Predict the habitable ranges of pollinators using geospatial MaxEnt machine learning models trained on community science data from nonprofit partners

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; contribute writing and feedback to manuscripts

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; captured and analyzed infrared video for animal behavior research; supervised and trained other undergraduate researchers

Forage Genetics International *West Salem, WI*

Research Technician *2014 - 2016*

- Perform greenhouse alfalfa maintenance and cross pollinations for breeding program; process samples and measure protein content via near-infrared spectroscopy (NIRS); assist with disease resistance research

Teaching

UA Science: Sky School *Tucson, AZ*

Instructor *2019-2020*

- Mentor and lead teams of primary school students through cross-disciplinary, inquiry-based science projects; Teach 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.

References

Keaton Wilson *keatonwilson@me.com*

Data Scientist at Martin & McCoy *(253) 301-7024*

- Partner in freelance project with Ecostructure and species distribution modeling research collaborator

Hong Cui *hong1.cui@gmail.com*

Professor at University of Arizona School of Information *(520) 373-6612*

- Research Assistantship supervisor and head of Biosemantics Research Group

Gustavo de Oliveira Almeida *gustavo@email.arizona.edu*

Coordinator of SensorLab Laboratory (Healthcare Technology Innovation Lab) *(917) 304-0909*

- Research internship supervisor