Noah Giebink

University of Arizona

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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 — *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 — *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 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; 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; Assess cloud-based computing architectures; 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 geospatial 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

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.