Anna Lundberg

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Skills:

Programming Languages: Python (proficient), Bash (proficient), R (proficient), SQL (basic), Postgres (basic)

Operating Systems: Linux, MacOS, Windows

Software and Environments: Git/GitHub, RStudio, Jupyter Notebook, PostgreSQL, Microsoft Office Suite, Google Suite, Tensor Flow

Bioinformatics: Sequence Alignment (RNA, genomic, protein), Differential Expression, Genome Assembly, General High-throughput Sequencing Analysis, Phylogenetic Tree Building

Laboratory: Soil and plant tissue sample collection, sterilization, seed extraction, microbe culturing and isolation, DNA extraction, agar production, developing scientific protocols, PCR, ELISA, Illumina Sequencing Prep

Research Experience:

Deep Learning for Visual Tumor Detection and Demography-Based Predictions

Graduate Research   October 2018-present

Omics Data Automation, Beaverton, OR
- Developing a machine learning model to identify and classify metastases in histology images with a goal of 90% accuracy.
- Designed and built an intuitive database of cancer patient data using PostgreSQL from raw patient data.

Pathogen Defense in *Zea mays* Through Seed Endophyte Ecology

Undergraduate Laboratory Assistant   October 2014-August 2015

Bohannan Lab, Institute of Ecology and Evolution, Eugene, OR
- Conducted bacterial inoculum trials testing fungal pathogen resistance in *Zea mays*.
- Used PCR and microbe-microbe interaction plating to develop multistep protocols for pathogen and inoculum screening.
- Collected and processed plant tissue samples for microbe culturing and DNA extraction.

Professional Experience:

Biological Science Technician (Plants)   June 2015-May 2018

Dorena Genetic Resource Center, US Forest Service, Cottage Grove, OR
- Monitored pathogen evaluation field sites, collected data and recorded pathogen trial data.
- Conducted controlled cross breeding to produce trees with multiple resistance genes.
- Demonstrated leadership in strategic implementation of tasks, such as serial propagation, pollination and transplanting.

Student Library Assistant / Math Tutor   August 2013-December 2014
University of Oregon Libraries, Eugene, OR
- Tutored university students in Algebra, Trigonometry, Calculus and Statistics.
- Assisted students with utilizing library services.
- Collected books for research, scanned and sent articles using Illiad software.
- Updated library account database using Microsoft Access.

Education:

Master of Science, Biology: *Bioinformatics and Genomics Program*   expected December 2019
University of Oregon

Bachelor of Science, Biology, *Focus: Ecology and Evolution*   June 2015
University of Oregon

Awards & Certifications:

Outdoor Emergency Care (EMR) Certificate   Fall 2017
- Emergency medical responder certification with a focus on training that applies to situations likely to be encountered in a winter recreation area.

UnderGREBES Scholar Award   Spring 2015
- Funding award for undergraduate research in the Institute of Ecology and Evolution (IEE) at University of Oregon.
- Applications are reviewed by a panel of IEE graduate students, who award funding to the top four applicants.
- This award was given for a project on developing a bacterial inoculum to protect corn plants from a fungal pathogen.