Jordan A. Lee

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EDUCATION

Bioinformatics and Genomics Program, Master of Science

• University of Oregon

Eugene, Oregon Jun. 2018 - Present

Aquatic and Fishery Science, Bachelor of Science

• University of Washington

Seattle, Washington Sept. 2011 - Jun. 2015

• Research Scholar Distinction, Departmental Merit Distinction, and Dean's List

SKILLS

Biological Data Analysis

- RNA, protein, lipid
- Single cell sequencing
- Differential gene expression analysis
- Phylogenetic and molecular evolution
- Molecular marker and biomarker analysis
- De novo genome assembly
- Genome alignment
- Quality control of sequencing data
- Demultiplexing (wrote novel program)
- PCR de-duplication (wrote novel program)
- Analytical chemistry

Languages

- Bash
- Python
- R

Highlighted Tools and Programs

- Velvet assembler
- BLAST, GMAP-GSNAP, STAR
- FastQC
- Stacks
- GATK tools, SAMtools
- HTSeq
- Seurat
- DESeq, DESeq2
- PhyML
- Slurm

Team Management Experiences

- Google
- University of Washington (UW)
- Washington State Department of Ecology (DOE)

WORK EXPERIENCES

Single cell analysis of olfactory neuron development

In collaboration with Stowers Institute for Medical Research

Eugene, Oregon Sept. 2018 - Present

- Conducted molecular marker analysis for >4,500 cell expression profiles
- Applied GATK tools to quality trim and clean Drop-seg scRNA-seg data (>950,000,000 reads)
- Used dimensionality reduction techniques to cluster cells based on expression profile similarity
- Problem-solved programming issues (e.g. bioinformatics tool pipelines)

Leadership and Google software development

Google, Quality Assurance Specialist 2 Google, Quality Assurance Specialist 1 Bothell, Washington Nov. 2017 - Jun. 2018 Feb. 2017 - Nov. 2017

- Wrote protocol pipelines that increased employee output and precision
- Team manager when manager was out of office duties included allocating tasks, monitoring team progress, resolving project questions or issues, and writing project reports
- Worked closely with engineers, clients, and quality assurance team to develop, implement solutions, and maintain new and existing software

Lipid metabolism and energy flow within populations

UW, Research Technician (2 labs)

UW, Research Assistant and Undergraduate Thesis Student

Seattle, Washington Oct. 2015 - Aug. 2016 Jan. 2014 - Oct. 2015

- Wrangled mass spectrometry data to identify structures and remove false positives
- Aided in developing innovative lab protocols that increased chemical purity and yield
- Tracked divisional research spending and performed cost analysis

Neonicotinoid exposure and absorption for Washington State DOE

Seattle, Washington

WA CFW Research Unit, Data Collection Operations and Analysis Team Lead Jan. 2015 - Mar. 2015

- Led coordinated efforts of proposal submission, scheduling, and symposium preparation
- Quantified drug efficacy via chemical data analysis to identify best drug application method
- Interfaced with state agency for approval of methods and reporting results

Population ecology studies

Dillingham, Alaska

Alaska Salmon Program, *Undergraduate Researcher*

Mar. 2014 - Dec. 2014

- Applied mathematical model to predict population size and biological implications
- Conducted regression analysis and hypothesis testing

Liquid chromatography coupled with mass spectrometry (LC-MS)

Seattle, Washington

UW, Research Assistant UW, Lab Assistant Jan. 2014 - Oct. 2015 Apr. 2013 - Nov. 2013

- Mentored internal and external scientists to understand and integrate workflows
- Data wrangling of mass spectrometry data to remove false positives
- Facilitated communication between clients and internal scientists to analyze LC-MS

PUBLICATION

Lee, J.A., Vlah, M.J. and Holtgrieve, G.W. "Spatial and temporal interaction effects on lipid metabolism" (In preparation)

RESEARCH FUNDING

University of Washington Faculty Merit Award - \$500

2015

- A highly competitive award given annually to 1-2 undergraduates who were nominated by faculty members and evaluated by a committee.
- Selection criteria: service to the university, contribution to scientific research, and academic merit

Mary Gates Endowment: Research Scholar - \$4K

2014 - 2015

- Bill Gates and Melinda Gates established the Endowment in honor of Bill's mother and its purpose is to invest in student leadership and research. This is UW's largest endowment for undergraduate scholarships and requires a research proposal written by the student.
- Selection criteria: leadership, rigor, research description, and impact to the scientific field

University of Washington Department Award - \$1K

2014 - 2015

- This is a competitive award to fund student research performed at the University of Washington and requires a research proposal written by the student.
- **Selection criteria:** impact to the University of Washington, research description, academic performance, itemized expenses, and research timeline