Kelly Sovacool

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kelly-sovacool
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Education

2018-present **PhD Student - Bioinformatics**, *University of Michigan*,
Dept. of Computational Medicine and Bioinformatics,
Program in Biomedical Sciences
Medical School | Rackham Graduate School

2014-2018 **BS Biology**, *University of Kentucky*

- Minor: Computer Science
- 4-year full tuition Presidential Scholarship
- Graduated Cum Laude
- Departmental Honors in Biology
- Lewis Honors College

Research Experience

2015-2018 **Undergraduate Lab Assistant**, *Moseley Bioinformatics Lab*,
Dept. of Molecular and Cellular Biochemistry, University of Kentucky

- Developed a computational tool for identifying sets of orthologous and paralogous gene products in whole genomes to facilitate collinearity analysis and detection of gene duplication events.

2016-2018 **BIO395 Independent Research Student**, *Weisrock Lab*,
Dept. of Biology, University of Kentucky

- Developed scripts and a SNP calling pipeline for amplicon sequence data.
- Population structure analysis of the *Ambystoma tigrinum* species complex.
- Bayesian species delimitation of the *Desmognathus fuscus* species complex.

2015-2016 **Undergraduate Lab Assistant**, *Jaromczyk Lab*,
Dept. of Computer Science, University of Kentucky

- Maintained the *Epichloë festucae* genome project database.
- Analyzed RNA-seq data of *Chenopodium quinoa* and coffee ringspot virus.

Awards

Dec 2017 **Oswald Research & Creativity Award**, *University of Kentucky*

- Awarded a $200 prize for second place in the Biological Sciences category.
- Manuscript title: "Developing a Global Homology and Collinearity Analysis Framework for Identifying Gene Duplication Events."
- Advisor: Prof. Hunter NB Moseley.

May 2017 **Summer Research Grant**, *University of Kentucky*

- Awarded a $2,000 grant by the UK Office of Undergraduate Research to work full time on a research project during the summer.
- Project title: "Developing a Global Homology and Collinearity Analysis Framework for Identifying Gene Duplication Events."
- Advisor: Prof. Hunter NB Moseley.

Presentations

Apr 2018 **Developing a Global Homology Analysis for Comparative Genomics**, *Advisor: Prof. Hunter NB Moseley*

- Poster, *Showcase of Undergraduate Scholars*, University of Kentucky
- Oral, *Systems Biology & Omics Integration Seminar*, University of Kentucky
- Poster, *National Conference on Undergraduate Research*, University of Central Oklahoma

Apr 2016 **Processing RNA-seq Reads of Plants Infected with the Coffee Ringspot Virus**, *Advisor: Prof. Jerzy W Jaromczyk*

- Poster, *Showcase of Undergraduate Scholars*, University of Kentucky
- Poster, *UT-KBRIN Bioinformatics Summit*, Cadiz, KY

Apr 2015 **The Effect of Meditation on Performance**, *Advisor: Prof. Bruce O'Hara*

- Poster, *Showcase of Undergraduate Scholars*, University of Kentucky

Teaching Experience

Mar. 2019 **FEMMES Capstone Activity Leader**

Dec. 2018 **Software Carpentry helper**, *during 2-day workshop teaching the Unix Shell, Programming in R, and Version Control with Git.*, University of Michigan

2012-2017 **Tutor**, *for high school and college students in Biology, Calculus, Chemistry, Computer Science, and Bioinformatics.*

Publications

M. M. Goodin, M. Farman, H. Inocencio, C. Jang, J. W. Jaromczyk, N. Moore, and K. Sovacool. Processing rna-seq data of plants infected with coffee ringspot virus. In *Proceedings of the 15th Annual UT-KBRIN Bioinformatics Summit 2016*, volume 17, page 297, Aug 2016.