Kelly L. Sovacool

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Education

2018-present **PhD Student - Bioinformatics**, *University of Michigan*,
Dept. of Computational Medicine and Bioinformatics,
Medical School | Rackham Graduate School
Advisor: Pat Schloss

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

2019-present **Graduate Student Researcher**, *Schloss Lab*,
Dept. of Microbiology and Immunology, University of Michigan
- Developing bioinformatics tools & pipelines for microbial ecology.
- 16S rRNA sequence analysis and tandem mass spectrometry data analysis.

2018-2019 **Rotation Student Researcher**, *Program in Biomedical Sciences*,
University of Michigan

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

2019-2020	**NIH T32 Bioinformatics Training Program Fellow**
	University of Michigan
Dec 2017	**Oswald Research & Creativity Award**, *UK Office of Undergraduate Research*, 2nd place in the Biological Sciences category ($200)
	University of Kentucky
May-Aug 2017	**Summer Research Grant**, *UK Office of Undergraduate Research*, ($2,000)
	University of Kentucky

Service

2019-present	**Graduate Student Coordinator**, *Data Analysis Networking Group*, organize monthly meetings for researchers to sharpen their data analysis skills, funded by a Rackham Interdisciplinary Workshop grant.
	University of Michigan
2019-present	**Executive Committee Member**, *Girls Who Code at UM-DCMB*, plan and develop curriculum for a weekly club teaching introductory programming & data science to high school women via live-coding.
	University of Michigan
2018-present	**Summer Experience Committee Member**, *Girls Who Code at UM-DCMB*, plan, apply for funding, and develop curriculum for our Data Science Summer Experience for high school women in Detroit.
	University of Michigan
2009-present	**Live Sound Engineer**, *for various churches and non-profit organizations.*
	○ Set up, maintain, repair, and operate front of house, monitor, and recording systems during sound checks, rehearsals, services, and concerts.
	○ Train new sound techs in the art and science of live sound.

Teaching Experience

2018-present	**Software Carpentry instructor**, *U-M Software Carpentry*, The Carpentries
	○ 01-02 July 2019. Workshop instructor teaching the Unix shell, Git, and R.
	○ 22-23 May 2019. Workshop helper teaching the Unix shell, Git, and Python.
	○ 01 Mar 2019. Workshop helper teaching the Unix shell, Git, and Python.
	○ 17-18 Dec 2018. Workshop helper teaching the Unix shell, R, and Git.
15-19 July 2019	**Facilitator & Mentor**, *Girls Who Code at UM-DCMB*, taught introductory Python programming and data science to high school women during the Data Science Summer Experience.
	Detroit, MI
25 Apr 2019	**DNA Day Ambassador**, *MI DNA Day*, taught an epigenetics lesson to high school biology students., Pioneer High School
	Ann Arbor, MI

20 Mar 2019 **Workshop helper**, *Graduate Society of Black Engineers and Scientists*, taught data visualization with Python during a GSBES meeting.
University of Michigan

16 Mar 2019 **Capstone activity leader**, *Females Excelling More in Math, Engineering, & Science*, taught binary numbers with Ozobots at FEMMES capstone event for middle school students.
University of Michigan

Jan-May 2019 **Capstone project mentor**, *Girls Who Code at UM-DCMB*, guided high school women through a data science project and presentation at our weekly club.
University of Michigan

2012-2018 **Tutor**, *for high school and college students in Biology, Calculus, Chemistry, Computer Science, and Bioinformatics.*

Presentations

Apr 2018 **Showcase of Undergraduate Scholars**, *Developing a Global Homology Analysis for Comparative Genomics*, Poster
University of Kentucky

Apr 2018 **Systems Biology & Omics Integration Seminar**, *Developing a Global Homology Analysis for Comparative Genomics*, Talk
University of Kentucky

Apr 2018 **National Conference on Undergraduate Research**, *Developing a Global Homology Analysis for Comparative Genomics*, Poster
University of Central Oklahoma

Apr 2016 **Showcase for Undergraduate Scholars**, *Processing RNA-seq Reads of Plants Infected with the Coffee Ringspot Virus*, Poster
University of Kentucky

Apr 2016 **UT-KBRIN Bioinformatics Summit**, *Processing RNA-seq Reads of Plants Infected with the Coffee Ringspot Virus*, Poster
Cadiz, KY

Apr 2015 **Showcase for Undergraduate Scholars**, *The Effect of Meditation on Performance*, Poster
University of Kentucky

Professional Development

03-04 Jun 2019 **Software Carpentry Instructor Training**, *The Carpentries*
University of Michigan

24-26 Apr 2019 **MICROBIOL 612.2**, *Riffomonas minimalR workshop*
University of Michigan

01-05 May **PyCon Education Summit & Conference**, *The PSF*
2019   Cleveland, OH