Sarah Nadeau

Biological Engineering, Masters of Science (Graduating December 2018)
Cornell University, Graduate School
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Experience

Metagenomics Graduate Research **Aug 2017 – Present**
Researching computational methods to quickly assign taxonomic classification to short DNA reads. My approach uses machine learning to generalize from a limited set of reference genomes to diverse environmental samples.

Amyris Biotechnology, Fermentation Lab Operations Intern **Jun 2017 – Aug 2017**
Designed and implemented studies to improve screening data quality in small-scale fermentation trials. Built an XML editing tool in Python to eliminate repetitive, manual curation of log files.

Monsanto Company, Soy Breeding Co-op **Jun 2016 – Dec 2016**
Developed Spotfire visualizations to identify underdeveloped product classes in the soy breeding pipeline. Supervised day-to-day task assignments for a 10-person team to meet breeder harvest deadlines.

Bejo Seeds, Inc., Tomato Breeding Co-op **May 2015 – Dec 2015**
Worked on tomato and potato breeding teams during greenhouse and field trialing. Primarily performed data collection and inventory in Excel.

Cornell Soil and Water Lab, Research Assistant **May 2014 – Aug 2014**
Conducted study to determine differences in soil bacterial communities. Results contributed to a peer-reviewed publication.

Education

Cornell University
Masters of Science, Biological Engineering *Aug 2017 – Dec 2018*
Bachelor of Science, Biological Engineering *Aug 2012 – Jun 2016*

Graduated Magna Cum Laude
GPA: 4.0/4.3

Computational Coursework: Object-Oriented Programming and Data Structures (in progress), Machine Learning (in progress), Computational Genetics and Genomics, Engineering Computation, Resource Inventory and Analysis (GIS), Computer-Aided Engineering

Statistics: Statistical Methods II (in progress), Introduction to Data Science, Engineering Probability and Statistics

Publication

Truhlar, A.M., Rahm, B.G., Brooks, R.A., Nadeau, S.A., Makarsky, E.T., & Walter, M.T. 2016. Greenshouse Gas Emissions from Septic Systems in New York State. *Journal of Environmental Quality.*

Honors and Awards

Cornell Dept. of Biological and Environmental Engineering Graduate Research Fellowship Feb 2017
NSF Graduate Research Fellowship Honorable Mention (1 of 1,695/ 13,000 applicants) Mar 2017
NYS Chancellor's Award for Student Excellence (1 of 265/ New York State) May 2016

Community Involvement

Beverly J. Martin Elementary, Kindergarten Classroom Aide **Mar 2017 – Jun 2017**
Provided academic and behavioral support to special needs kindergarteners.

Cornell Nordic Ski Team, Treasurer **Aug 2014 – May 2014**
Organized training and race trips for student-led sports team. Won additional university funding to reduce dues and provide free equipment loans to promote inclusivity.

Cornell Outing Club, Vice President **Aug 2013 – May 2014**
Organized meeting speakers, budgeted for club equipment, and led outdoors trips.