SAMUEL OZMINKOWSKI

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Education

Northwestern University   **September 2022 – Present**
Pursuing Ph.D. - Statistics

University of Wisconsin-Madison   **September 2020 – May 2022**
Master of Science - Statistics

University of Michigan-Ann Arbor   **September 2014 – April 2018**
Bachelor of Science with Distinction - Computer Science; Minor: Sociocultural Anthropology

Papers

- Identifying microbial drivers in biological phenotypes with a Bayesian Network Regression model, **Samuel Ozminkowski** & Claudia Solís-Lemus, in progress

- BioKlustering: a web app for semi-supervised learning of maximally unbalanced genomic data, Yuke Wu, **Samuel Ozminkowski**, Liule Yang, Zhiwen Xu, Luke Selberg, Chunrong Huang, & Claudia Solís-Lemus, in progress

Presentations

- Identifying microbial drivers in biological phenotypes with a Bayesian Network Regression model, **Samuel Ozminkowski** & Claudia Solís-Lemus, *Intelligent Systems for Molecular Biology*, Madison, WI, July 10-14, 2022

Posters

- Identifying microbial drivers in biological phenotypes with a Bayesian Network Regression model, **Samuel Ozminkowski** & Claudia Solís-Lemus, *Intelligent Systems for Molecular Biology*, Madison, WI, July 10-14, 2022

- Identifying microbial drivers in biological phenotypes with a Bayesian Network Regression model, **Samuel Ozminkowski** & Claudia Solís-Lemus, *U.S. Department of Energy Genomic Science Program PI Meeting*, Online, February 28 - March 1, 2022

- Bayesian network regression with applications to microbiome data, **Samuel Ozminkowski** & Claudia Solís-Lemus, *JuliaCon*, Online, July 28-30, 2021

Honors and Awards

Statistics M.S. Exam Special Mention
November 2021   *University of Wisconsin-Madison*

University Honors
Fall 2014, Fall & Winter 2015, Fall & Winter 2016   *University of Michigan*

William J. Branstrom Freshman Prize
Winter 2015   *University of Michigan*

Open-Source Software Development

Bayesian Network Regression

- Developed a new package for the Julia programming language to implement a Bayesian regression framework for network covariates.
- GitHub link: BayesianNetworkRegression.jl

BioKlustering

- Along with a team of undergraduates, helped develop a user-friendly open-source and publicly available web app for unsupervised and semi-supervised learning specialized in cases when sequence alignment and/or experimental phenotyping of all classes are not possible.
- GitHub link: BioKlustering

Work Experience

Epic Systems Corp.   **August 2018 – August 2020**
Software Developer, Lab Charging Lead   *Madison, WI*
- Lead team of three developers to design and develop new full-stack web application to allow lab users to intake external orders and specimens using C#, JavaScript, SASS, & MUMPS
- Organized, designed, and completed development of bug fixes for laboratory charging

University of Michigan Information and Technology Services   **May 2016 – July 2018**
Canvas Crew   *Ann Arbor, MI*
- Assisted professors with change from CTools to Canvas online system
- Performed basic data analysis to gain information on the status of the transition
- Offered one-on-one help with course site design
- Performed technical troubleshooting of Canvas courses

Outreach, Teaching, and Leadership

Solís-Lemus Lab   **May 2021 – May 2022**
Research Mentor   *UW-Madison*
- Managed and mentor a statistics undergraduate student in testing a web application implementing clustering models
- GitHub link: Bioklustering

Biological Interactions Program/Solís-Lemus Lab   **May 2021 – August 2021**
Research Mentor   *UW-Madison*
- Provide mentorship to an undergraduate student studying biology in analyzing phylogenetic data

Statistics for the Life Sciences   **September 2020–December 2020**
Teaching Assistant   *UW-Madison*
- Taught discussion sections, held office hours, and graded assignments for 60+ undergraduates
- Course material focused on basic statistics and R programming for biology students

Epic Systems Corp.   **June 2020 – August 2020**
Internship Mentor   *Madison, WI*
- Mentored an undergraduate intern through successful development of a new graphing framework for laboratory results

PBS Wisconsin Education - Meet the Lab
Data Decoders: Superpowered by Computers
- Interviewed about statistics research for video geared toward elementary school students.
- WPBS link: Meet the Lab

Rotaract Michigan   **January 2015 – April 2018**
President – May 2017–April 2018   *University of Michigan*
- Oversaw 9-member Executive Board, ran semi-weekly board meetings
- Coordinated club activities with Rotary Club of Ann Arbor
- Planned semi-weekly meetings for general members

Local Service Committee – Chair 2016–2017
- Worked with leaders from local non-profits and volunteer organizations to organize service events for Rotaract Club members
- Planned week-long service trips with the Carolina Mountain Land Conservancy and Hiwassee River Watershed Coalition in western North Carolina

Code-M   **May 2017 – April 2018**
Executive Board Member   *University of Michigan*
- Organized tech talks with companies looking to recruit U of M students
- Organized and presented technical workshops and social events for club members

Technical Skills

Languages: Julia, Python, R, C#, JavaScript/TypeScript, MUMPS, C++
Technologies/Frameworks: Linux/Bash, Git/GitHub, R Shiny, .NET