

Samuel Sledzieski

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EDUCATION	Massachusetts Institute of Technology	Cambridge, MA
	PhD, Electrical Engineering and Computer Science • In Progress • Concentration: Computational biology, machine learning, protein networks, protein structure • Advisor: Dr. Bonnie Berger SM, Electrical Engineering and Computer Science	2019 – 2024 2019 – 2021
	University of Connecticut	Storrs, CT
	BS, Computer Science • Minor in Molecular and Cellular Biology • Concentration: Bioinformatics, Data Science • Advisor: Dr. Mukul Bansal • Magna Cum Laude, Honors Scholar	2015 – 2019
RESEARCH	Massachusetts Institute of Technology	Cambridge, MA
	Research Assistant, Computation and Biology Group	Feb 2020 – Present
	Cellarity	Cambridge, MA
	Machine Learning Intern, Perturbation Biology Group	May 2021 – Aug 2021
	MIT Lincoln Laboratory	Lexington, MA
Summer Research Program, Advanced Lasercom Systems Group	May 2019 – Aug 2019	
	University of Connecticut	Storrs, CT
	Undergraduate Research Assistant, Computational Biology Lab	Jan 2017 – May 2019
	Software Developer, Jackson Laboratory for Genomic Medicine	Aug 2018 – May 2019
	Undergraduate Research Assistant, Nelson Lab	Oct 2015 – Dec 2016
TEACHING	Massachusetts Institute of Technology	Cambridge, MA
	Teaching Assistant, Machine Learning in Genomics (6.878)	Fall 2021
	Teaching Assistant, Intro to Deep Learning (6.S191)	Winter 2021, 2022
	University of Connecticut	Storrs, CT
	Teaching Assistant, Theory of Computation	Spring 2018
PUBLICATIONS	[7] Devkota*, Singh*, Sledzieski , Berger, Cowen, “Topsy-Turvy: integrating a global view into sequence-based PPI prediction,” <i>Bioinformatics</i> , In Press.	
	[6] Kousi, Boix, Park, Mathys, Sledzieski , Peng, Bennett, Tsai, Kellis, “Single-cell mosaicism analysis reveals cell-type-specific somatic mutational burden in Alzheimer’s Dementia,” <i>bioRxiv</i> . posted 22 April 2022, 10.1101/2022.04.21.489103	
	[5] Kumar, Brenner, Sledzieski , Olaosebikan, Lynn-Goin, Putnam, Yang, Lewinski, Singh, Daniels, Cowen, Klein-Seetharaman, “Transfer of Knowledge from Model Organisms to Evolutionarily Distant Non-Model Organisms: The Coral <i>Pocillopora damicornis</i> Membrane Signaling Receptome,” <i>bioRxiv</i> . posted 28 October 2021. 10.1101/2021.10.18.464760	
	[4] Zaman*, Sledzieski* , Wu, Bansal, “Phylogenetic reconciliation reveals extensive ancestral recombination in Sarbecoviruses and the SARS-CoV-2 lineage,” <i>bioRxiv</i> . posted 13 August 2021, 10.1101/2021.08.12.456131	
	[3] Sledzieski* , Singh*, Cowen, Berger, “D-SCRIPT translates genome to phenome with sequence-based, structure-aware, genome-scale predictions of protein-protein interactions,” <i>Cell Systems</i> 12.10 (2021): 969-982.	

- [2] **Sledzieski***, Singh*, Cowen, Berger, “Sequence-based prediction of protein-protein interactions: a structure-aware interpretable deep learning model,” *Conference on Research in Computational Molecular Biology (RECOMB)* 2021.
- [1] **Sledzieski**, Zhang, Mandoiu, Bansal, “TreeFix-TP: Phylogenetic Error Correction for Accurate Reconstruction of Viral Transmission Networks,” *Pacific Symposium on Biocomputing (PSB)* 2021: Proceedings, pages 119-130.

PRESENTATIONS	RECOMB 2022 – Adapting Protein Language Models for DTI	Apr 2019
	Machine Learning in Structural Biology (MLSB) Workshop at NeurIPS 2021	Dec 2021
	Research on Computational Molecular Biology (RECOMB) 2021 Proceedings Talk	Sep 2021
	Cold Spring Harbor Laboratory 2021 Meeting on Network Biology	Mar 2021
	PSB 2021 - Biocomputing and AI for infectious disease modelling and therapeutics	Jan 2021
	RECOMB 2019 – Viral Error Correction with TreeFix-TP	Apr 2019
	IEEE ICCABS Workshop on Computational Advances for Next Generation Sequencing	Oct 2018
	UConn Fall Frontiers in Undergraduate Research	Oct 2018
	University of Connecticut Bioinformatics Seminar	Mar 2018, Oct 2018

AWARDS & FELLOWSHIPS	National Science Foundation (NSF) Graduate Research Fellowship	2021 - 2024
	First Place, MIT Intro to Deep Learning Final Project Competition	2020
	Dean’s List, College of Liberal Arts and Sciences, School of Engineering	2015 – 2019
	Academic Excellence Scholarship, University of Connecticut	2015 – 2019
	New England Scholar, University of Connecticut	2017 – 2019
	Third Place Machine Learning, United Health Group Global Hackathon	2017
	Third Place Overall, HampHack	2017
	Third Place Overall, HackUConn	2017
National Merit Scholarship Finalist	2014	

MEMBERSHIPS & ACTIVITIES	International Society for Computational Biology (ISCB)
	Institute of Electronics Engineers (IEEE)
	Association for Computing Machinery (ACM)
	Tau Beta Pi, Engineering Honor Society (TBII)
	Eta Kappa Nu (IEEE-HKN)
	Upsilon Pi Epsilon, Computer Science Honor Society (UPE)

[CV compiled on 2022-06-05]