ERIKA RUMBOLD

erumbold@uvic.ca | Website | Google Scholar | GitHub | LinkedIn

RESEARCH INTERESTS

Music Information Retrieval, Audio Source Separation, Automatic Music Transcription, Score-Informed Source Separation, Machine Listening, Music

PROFESSIONAL EXPERIENCE

University of Victoria　　　　　　　　　　　　　　　　　Victoria, BC, Canada
Research Assistant　　　　　　　　　　　　　　　　　　　*Sep 2022 - Present*
Advisor: George Tzanetakis

Northwestern University　　　　　　　　　　　　　　　　　Evanston, IL
Student Researcher　　　　　　　　　　　　　　　　　　　*Sep 2021 - Aug 2022*
Interactive Audio Lab
Advisor: Bryan Pardo

Empower AI　　　　　　　　　　　　　　　　　　　　　　Reston, VA
Software Engineer　　　　　　　　　　　　　　　　　　　*Feb 2018 - Aug 2020*

Ithaca College　　　　　　　　　　　　　　　　　　　　Ithaca, NY
Research Assistant　　　　　　　　　　　　　　　　　　　*Jan 2017 - Dec 2017*
Tots on Bots
Advisor: Sharon Stansfield

Dana Internship Program　　　　　　　　　　　　　　　　Ithaca, NY
Research Intern　　　　　　　　　　　　　　　　　　　　*May 2017 - Aug 2017*
Advisor: John Barr

TEACHING

Workshop Designer and **Head Lecturer**　　　　　　　　Victoria, BC, Canada
Women in Engineering, Science, and Technology (WEST)　　*May 2024 - Jul 2024*
WEST x Redbrick Python Fundamentals Workshop

Teaching Assistant
University of Victoria
CSC 475/575 – Music Retrieval Techniques　　　　　　　　　　Spring 2024
CSC 421 – Introduction to Artificial Intelligence　　　　　　　　Fall 2024
CSC 110 – Fundamentals of Programming I　　　　　　　　　　Fall 2023

Northwestern University
COMP_SCI 349 – Machine Learning　　　　　　　　　　　　　Winter 2022
COMP_SCI 348 – Introduction to Artificial Intelligence　　　Spring 2021, Fall 2021
COMP_SCI 295/396/496 – AI and Experimental Narrative　　　　　Spring 2022

Ithaca College

COMP 17100 – Principles of Computer Science I	Fall 2016, Spring 2017, Fall 2017
COMP 17200 – Principles of Computer Science II	Spring 2017
COMP 20500 – Advanced Web Programming	Fall 2017
TVR 10500 – Introduction to Audio Production	Fall 2015, Spring 2016

EDUCATION

University of Victoria, Victoria, BC, Canada *expected 2026*
Ph.D. in Computer Science

Northwestern University, Evanston, IL *2022*
Master of Science in Computer Science
Thesis: A Critical Analysis of Objective Evaluation Metrics for Music Source Separation Quality
Committee: Bryan Pardo (advisor), Han Liu

Ithaca College, Ithaca, NY *2017*
Bachelor of Arts in Computer Science
Minors in Audio Production, Music

HONORS & AWARDS

Upsilon Pi Epsilon 2017
International Honor Society for the Computing and Information Disciplines

Dean's List Fall 2014, Spring 2015, Fall 2015
Ithaca College

PUBLICATIONS

Erika Rumbold, George Tzanetakis, Bryan Pardo. Correlations Between Objective and Subjective Evaluations of Music source Separation. In *Proceedings of the Sound and Music Computing Conference (SMC)*, 2024.

PRESENTATIONS

Measuring Prefrontal Cortex Activity during Passive and Active Movement. Melody Wallace, **Erika Rumbold**, Sharon Stansfield, Helene Larin, Carole Dennis. *Rehabilitation Engineering and Assistive Technology Society of North America Conference (RESNA)*. New Orleans, LA. June 2017. Poster.

SERVICE

Treasurer *Aug 2016 - May 2017*
Ithaca College Women in Computing

SKILLS

Programming Languages: *Expert:* Python, *Past Experience:* Java, JavaScript, C++
Machine Learning: *Expert:* PyTorch, Tensorflow, SciPy, NumPy, Scikit-learn
Web: *Past Experience:* JavaScript, HTML, CSS, Flask, Django, AWS, Spark
Data: *Expert:* Pandas, *Past Experience:* SQL