

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 <i>Research Assistant</i> Advisor: George Tzanetakis	Victoria, BC, Canada 2022 - Present
Northwestern University <i>Student Researcher</i> Interactive Audio Lab Advisor: Bryan Pardo	Evanston, IL 2021 - 2022
Empower AI <i>Software Engineer</i>	Reston, VA 2018 - 2020
Ithaca College <i>Research Assistant</i> Tots on Bots Advisor: Sharon Stansfield	Ithaca, NY 2017
Dana Internship Program <i>Research Intern</i> Advisor: John Barr	Ithaca, NY 2017

TEACHING

Workshop Designer and Head Lecturer <i>Women in Engineering, Science, and Technology (WEST)</i> WEST x Redbrick Python Fundamentals Workshop	Victoria, BC, Canada 2024
Teaching Assistant <i>University of Victoria</i> CSC 475/575 – Music Retrieval Techniques CSC 421 – Introduction to Artificial Intelligence CSC 110 – Fundamentals of Programming I	Spring 2024, Spring 2025 Fall 2024 Fall 2023
<i>Northwestern University</i> COMP_SCI 349 – Machine Learning COMP_SCI 348 – Introduction to Artificial Intelligence COMP_SCI 295/396/496 – AI and Experimental Narrative	Winter 2022 Spring 2021, Fall 2021 Spring 2022

Ithaca College

COMP 17100 – Principles of Computer Science I
COMP 17200 – Principles of Computer Science II
COMP 20500 – Advanced Web Programming
TVR 10500 – Introduction to Audio Production

Fall 2016, Spring 2017, Fall 2017
Spring 2017
Fall 2017
Fall 2015, Spring 2016

EDUCATION

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

expected 2026

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

2016 - 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

SELECT MUSIC CREDITS

I've performed as a professional violinist in pit orchestras, wedding ensembles, and church bands.
I've also arranged pieces for orchestras, chamber ensembles, and choirs.

Super Mario 64 Medley <i>Arrangement for Ithaca College Gamer Symphony Orchestra</i>	2016
Spamalot <i>Delaware All State Theatre</i> Violin	2015
Miracle on 34th Street <i>Wilmington Drama League</i> Violin II	2013
Into the Woods <i>The Tatnall School</i> Violin I	2013
Jekyll & Hyde <i>Delaware All State Theatre</i> Violin II	2013
The Sound of Music <i>The Tatnall School</i> Violin I	2012