

STEPHEN BRADE

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CV last updated: January 1, 2025

EDUCATION

- Massachusetts Institute of Technology** Sep 2024 – Present
PhD in Electrical Engineering and Computer Science, Cambridge, MA
Topic: Designing interactive music generation systems
Supervisors: Anna Huang
- University of Toronto** Sep 2022 – Jan 2024
MSc in Computer Science, Toronto, ON
Topic: Designing systems to augment human creativity with AI
Supervisors: Tovi Grossman, Sageev Oore
- University of Toronto** Sep 2017 – Jun 2022
BAsC in Engineering Science (Machine Intelligence), Toronto, ON

RESEARCH PAPERS

- [C3] **S. Brade**, B. Wang, M. Sousa, G. L. Newsome, S. Oore, and T. Grossman. 2024. *SynthScribe: Deep Multimodal Tools for Synthesizer Sound Retrieval and Exploration*. In Proceedings of the 29th International Conference on Intelligent User Interfaces (IUI '24). Association for Computing Machinery, New York, NY, USA, 51–65. <https://doi.org/10.1145/3640543.3645158>
- [C2] **S. Brade**, B. Wang, M. Sousa, S. Oore, and T. Grossman. 2023. *Promptify: Text-to-Image Generation through Interactive Prompt Exploration with Large Language Models*. In Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology (UIST '23). Association for Computing Machinery, New York, NY, USA, Article 96, 1–14. <https://doi.org/10.1145/3586183.3606725>
- [C1] A. Dasgupta, **S. Brade**, L. Sannachi, K. Quiaoit, K. Fatima, D. DiCenzo, L. Osapoetra, M. Saifuddin, M. Trudeau, S. Gandhi, A. Eisen, F. Wright, N. Look-Hong, A. Sadeghi-Naini, W. Tran, B. Curpen, G. Czarnota. *Quantitative ultrasound radiomics using texture derivatives in prediction of treatment response to neo-adjuvant chemotherapy for locally advanced breast cancer*. *Oncotarget* 11, 42 (2020), 3782–3792. <http://dx.doi.org/10.18632/oncotarget.27742>

WORKSHOP PAPERS AND ARTWORK

- [W2] **S. Brade**, B. Wang, M. Sousa, GL. Newsome, S. Oore, and T. Grossman. 2023. *SynthScribe: Deep Multimodal Tools for Synthesizer Sound Retrieval and Exploration*. Workshop on Machine Learning for Creativity and Design (NeurIPS 2023), Dec 16, 2023, New Orleans, USA.
- [W1] D. Oore, A. Staniland, **S. Brade**, B. Wang, M. Sousa, GL. Newsome, T. Grossman, and S. Oore. 2023. *Mythos Synthscribe Remix: Deus in Machina*. Workshop on Machine Learning for Creativity and Design (NeurIPS 2023), Dec 16, 2023, New Orleans, USA.

RESEARCH AND WORK EXPERIENCE

- Adobe Research** May 2024 - Aug 2024
Research Scientist/Engineer Intern New York, New York
- Mentors: Anh Truong and Zeyu Jin
 - Topic: Improving interactions with Text-to-Speech technologies

University of Waterloo*Research Assistant*

May 2021 - Aug 2021

Waterloo, Canada

- Mentor: Olga Vechtomova
- Topic: Improving a models generation of lyrics conditioned on music

Advance Micro Devices (AMD)*Machine Learning Engineer*

May 2020 - May 2021

Markham, Canada

- Mentors: Max Kiehn and Yonas Bedasso
- Topic: Designing a tool that visualized a models prediction of regressive code

Sunnybrook Research Institute*Research Assistant*

May 2018 - Aug 2018

Toronto, Canada

- Mentor: Gregory Czarnota
- Topic: Improving prediction of patient responsiveness to chemotherapy via feature engineering of ultrasound images of tumours

AWARDS

Undergraduate Student Research Award

2021

*Natural Sciences and Engineering Research Council of Canada (NSERC)***TEACHING AND MENTORING ACTIVITY**

Engineering Science Undergraduate Senior Thesis Mentoring*University of Toronto**Sep 2022 - May 2023*

- **Shawn Zhang** Generating Audio Stories from Workouts using LLMs.
- **Yviel Castillejos** Comic Generation with Foundation Models.

Teaching Assistant*University of Toronto*

Sep 2022 - May 2023

- **ENG286: Literature and Data:** Responsible for running weekly tutorials teaching Python and data science, hosting an office hour, marking of coursework. Fall 2022
- **GGR274: Introductory Computation and Data Science for the Social Sciences:** Responsible for hosting an office hour to help students with Python and data science, marking of coursework. Winter 2023

PROFESSIONAL EXPERIENCE

AI & HCI Workshop Reviewer

Apr 2023

*International Conference on Machine Learning (ICML)***MISCELLANEOUS**

Musicianship: Guitar (8 years, jazz blues focus), Music Technology (Max, DAWs, JUCE), Amateur Composer (Composition link).

Languages: English (Native), Italian (Bilingual).