Emma Waddell (Portfolio)

Full Stack Software Engineer

72-56 60th Lane
Queens, NY, 11385
emmarwaddell@gmail.com

Work Experience

Full Stack Software Engineer / Better Mortgage
July 2022 - Current, 3 World Trade Center, New York, NY

- Used a Q-Learning system in SuperCollider that can generate beats of varying intensities while following an acoustic performer. Collaborated with Sarika
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Technology Director and Radio Host / WNYU Radio
January 2020 - June 2021, NYU, New York, NY

- Used a Q-Learning system in SuperCollider that can generate beats of varying
- intensities while following an acoustic performer. Collaborated with Sarika

Software Developer / Trinity College Neuroscience Department
June 2020 - June 2023, NYU, New York, NY

- Used a Q-Learning system in SuperCollider that can generate beats of varying
- intensities while following an acoustic performer. Collaborated with Sarika

Research Experience

Honors Undergraduate Thesis (2022, 2023)

- Built a Q-Learning system in SuperCollider that can generate beats of varying intensities while following an acoustic performer.

Presented at: NERD Summit ('23), Harvestworks ('23), Ensemble Evolution ('22)

NYU Gallatin Dean's Award for Summer Research (2021)

- Created a procedurally generated platformer game in Unity. User choices are fed into a neural network in Pure Data which generates a live soundtrack.

Presented at: IAWM Conference ('22), NYU Gallatin Keynote Research Conference ('21)

NYU Gallatin Undergraduate Research Fund (2020)

- Composed and recorded an album and interactive website in p5.js consisting of four songs based on ornithological data using simulations and data sonification.

Presented at: PHREATIC! exhibit on Governors Island ('21), NYC Audubon House ('22)

Education

New York University Gallatin (September 2018 - May 2022, GPA: 3.8)
BA Computer Science and Music Composition, Minor in Mathematics

Graduation Awards: Undergraduate Interdisciplinary Academic Excellence, Founders Day Award

Coursework: Natural Language Processing (Python), Computer Vision (PyTorch), Parallel Computing (MPI, openMP, CUDA), Computer Simulation (MATLAB), Artificial Intelligence (Keras)