Emma Waddell

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Portfolio: emmawaddell.com

WORK EXPERIENCE

Full Stack Software Engineer | Better Mortgage | New York, NY   July 2022 - June 2023
- Developed backend applications using Typescript, Javascript, Node.js, & Python
- Built frontend features using React.js, Ember.js, & Next.js, as well as HTML5
- Integrated with third party vendors using REST APIs, & Swagger/OpenAPI documentation
- Built relational database using TypeORM & Nest.js, with admin visualization dashboard
- Leveraged Docker, Amazon EC2, Postman, Datagrip, Git, Mocha test framework, and Datadog

Software Designer & Developer | Trinity College Neuroscience | Hartford, CT   June 2020 - Present
- Digitized the MIST diagnostic test to aid with administering remotely (p5.js)
- Collected user data as the test was taken to be used in the diagnostic process
- Modified original program to add a Spanish, a youth version, and a short form version

Technology Director & Radio Host | WNYU Radio | New York, NY   January 2020 - June 2021
- Updated and maintained the website (Ruby on Rails), live stream (Cron), and stations technology
- Created tutorials for station members to host their shows remotely during COVID
- Hosted weekly two hour live stream on experimental composition called Imaginary Landscapes

RESEARCH

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 - 2022
- 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 - 2022
- Composed and recorded an album and interactive website in p5.js consisting of four songs based on ornithological data using simulations (Java) and visualizations (Max/MSP/Jitter)

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

EDUCATION

NEW YORK UNIVERSITY GALLATIN   2018-2022
B.A. Computer Science and Music Composition, Minor in Mathematics | GPA 3.8 / 4.0
Graduation Awards: Undergraduate Interdisciplinary Academic Excellence, Founders Day Award
Coursework: NLP, Computer Vision, Parallel Computing, Operating Systems, Computer Simulation