

# JULIETTE MANGON

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## EDUCATION

### New York University

B.A. Computer Science and Mathematics

Sept 2022 – Dec 2025

**Coursework:** Applied Internet Technology, Natural Language Processing, Algorithms, Computer Systems Organization, Numerical Computing, Real Analysis, Theory of Probability, Mathematical Statistics and Data Analysis.

Minor in Business of Entertainment, Media, and Technology

**Coursework:** Data Analysis in the Music Industry, Business Structure of the Music Industry, Business of Film, Entertainment and Media Industries, Globalization of the Entertainment Industry, Business of Video Games.

## TECHNICAL SKILLS

**Languages & Frameworks** | Java, C++, C, Python, JavaScript, TypeScript, React, HTML, CSS, MATLAB, R

**Tools & Platforms** | AWS, Git, GitHub, Unix/Linux, Docker, REST APIs, MongoDB, SQL, Excel, Figma

## WORK EXPERIENCE

### Research Software Engineer | UCSF

Oct 2025 – Present

- Developing an interactive platform to visualize neural and genetic data from deep learning alignment models.

### Freelance Web Developer

Feb 2025 – Present

*React, Tailwind CSS, HTML, JS, Figma, Cloudflare*

- Built and launched 7+ responsive websites for artists and creative professionals, tailoring UI design and functionality to each client's brand identity.
- Used Cloudflare Analytics and client feedback to iterate design, prioritizing UX to improve user engagement and usability.
- Managed the full product lifecycle from prototyping to deployment, ensuring reliable performance.

### USA Mathematical Talent Search Grader | Art of Problem Solving

Oct 2023 – Present

*C++, Python, Excel, Mathematics*

- Evaluated 500+ Olympiad-level proofs per round, assessing complex reasoning and providing detailed feedback.
- Collaborated with other graders to refine rubrics and maintain scoring consistency across a national pool of submissions.

### AI/ML Intern | Enlaye

Jun – Aug 2025

*Python, AWS, TypeScript, SQL, Ollama, Drizzle ORM*

- Built and deployed end-to-end workflows that transformed field audio and images into structured issue reports integrated with Autodesk, Procore, and InEight, enabling 80% faster reporting across 1,000+ field events.
- Developed a preprocessing pipeline to standardize and filter input data, improving LLM accuracy by 20% and reducing query latency by 35%.
- Collaborated with PMs to define success metrics and refine product outputs to align with real-world user needs

### Software Engineering Intern | Regenerating Inc

May – Aug 2024

*Python, SwiftUI, Figma*

- Developed an AI photo-editing iOS application with a SwiftUI frontend and a Python facial-recognition backend.
- Implemented facial recognition using cv2, NumPy, and dlib to generate professional headshots.
- Prototyped layouts in Figma and conducted competitor and pricing analyses to refine design and market positioning.

## PROJECTS

### Music Data Analytics and Insights Tool – Music Tech Mentee

Jun – Aug 2025

*Python, HTML, JavaScript, Next.js, Express, MongoDB, vis.js*

- Selected as 1 of 40 mentees from 500+ applicants for She is The Music's mentorship program; received direct product mentorship from an industry PM.
- Built a full-stack web application integrating metadata from Spotify, MusicBrainz, Discogs, and SecondHandSongs APIs to map collaboration patterns across the music industry.
- Developed an analytics and insights dashboard with an interactive visual network to explore artist, genre, and label relationships, supporting A&R discovery and data-driven decision-making.

### Essay Plagiarism Detection Project

Dec 2024 – Jan 2025

*Python, TF-IDF, Word2Vec, N-grams, Cosine similarity, scikit-learn, NumPy*

- Developed a plagiarism detection system comparing n-gram features and similarity scores.
- Implemented multiprocessing to cut training time by 82% and achieved a 72.8% F-score across 1,400 academic papers.
- Presented findings in a departmental research showcase.