JULIETTE MANGON

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Ambitious Computer Science and Math major and Business of Entertainment, Media, and Technology minor at NYU. Seeking Summer 2025 internships in software engineering or tech-focused roles in media, entertainment, and business.

EDUCATION

New York University, **College of Arts & Sciences,** New York City, NY — Sept 2023 – Dec 2025
B.A. Computer Science and Mathematics
Course Work: Algorithms, Operating Systems, Numerical Computing, Computer Systems Organization, Real Analysis, Numerical Analysis, Natural Language Processing, Discrete Structures, Theory of Probability, Topology

Stern School of Business, Steinhardt School of Culture, Education, Human Development, Tisch School of The Arts
Minor in Business of Entertainment, Media, and Technology
Course Work: Entertainment and Media Industries, Globalization of the Entertainment Industry, Business Structure of the Music Industry, Business of Film, Business of Video Games

TECHNICAL SKILLS

Language & Frameworks | Java, C++, C, Python, MATLAB, Javascript, HTML, Haskell, Assembly, BASIC
Services & Tools | LaTex, Unix/Linux, Excel, Google Suite
Spoken Languages | English, French, Spanish (Conversational)

DEGREE-RELATED WORK EXPERIENCE

USA Mathematical Talent Search Grader | Art of Problem Solving — Oct 2023 – *Present*
C++, Python, Excel, Mathematics
- Evaluating students' entries to the USA Math Talent Search Contest, marking progress and awarding points accordingly
- Analyzes math calculations, theories, and computational proofs and provides constructive criticism

Photoville Intern | Regenerating Inc — May – Aug 2024
Python, SwiftUI, Figma
- Developed Photoville, an AI photo editing application for iOS using Python and SwiftUI
- Implemented facial recognition software from cv2, numpy, and dlib to create professional headshots
- Designed layout using Figma and conduct competitor and pricing analysis

PROJECTS

Plagiarism Detection Enhancement Project — Dec 2024 – *Present*
Python, MATLAB
- Designed and implemented a plagiarism detection system addressing the inaccuracies of existing tools by evaluating and refining methods from academic research
- Tested techniques such as N-gram classification, sentence similarity calculations, TF-IDF scores, and Word2Vec embeddings on a labeled dataset to identify the most accurate approach
- Developed a comparative evaluation function to measure and graph detected plagiarism against true values, in order to enhance detection precision using iterative improvements

Ad Hoc Information Retrieval System — Oct 2024
Python
- Developed a document ranking system for 225 queries and 1,400 abstracts using TF-IDF weighting and cosine similarity, implementing automated text processing for vector representation.
- Designed and optimized a ranking algorithm, evaluating system performance with Mean Average Precision to improve semantic similarity matching and retrieval accuracy.

Temperature Checker — Dec 2023
C, LEDs, Microprocessors
- Created an object that detects body temperature using a motion sensor and thermal infrared camera
- Implemented an LED display that changes color based on detected body temperature range

Graph Theory and Enumeration Project — Jan – May 2023
Mathematics
- Paired with a graduate mentor for a semester-long reading project with a focus on Graph Theory and Enumeration
- Presented findings to the other mentees and mentors as well as professors in the Mathematics Department