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The New York Times
620 Eighth Avenue
New York, NY 10018

Dear Hiring Manager,

I am excited to apply for the Graphics/Multimedia Editor – Applied Technology position at The New York Times. With expertise in detecting socioeconomic trends through satellite imagery and computer vision and a rich background in journalism from my time as a News & Data editor for The Flat Hat, I am uniquely equipped to excel in this role.

As part of a project funded by the Department of Homeland Security, I developed the Migration Data Portal. The portal is based on an ensemble learning model that combines satellite imagery and census data to predict migration from the United States to Mexico. Using Flask, I integrated this model directly into the portal, enabling users to adjust parameters such as literacy rates and re-predict outcomes to understand how policy changes influence migration patterns. This project demonstrates my ability to create software that addresses research challenges and my skills in building interactive tools that provide valuable insights.

During an undergraduate internship with CheckMySchool (CMS), I developed the CMS Data Portal, an RShiny tool that visualizes and allows users to interact with education data at the school level in the Philippines. Building on this experience, I expanded the concept to a global scale during my Ph.D. by creating the Global Education Observatory (GEO). While CMS focused on identifying local issues, GEO addresses large-scale data challenges across multiple countries. Expanding the geographic scope required me to learn and utilize new tools such as PostGIS and GeoServer to render large-scale geospatial datasets and scale the analysis. Additionally, adding undergraduate researchers to the team drove me to design and build a CI/CD pipeline through GitHub, seamlessly pushing data submitted by students into an AWS RDS database and onto the website. This experience demonstrates my ability to manage significant projects and develop solutions for visual and data storytelling.

My background in both geospatial data science and journalism uniquely positions me to contribute to the New York Times Graphics department, driving forward new approaches to visual journalism and enhancing the team's ability to report and create stories with accuracy and clarity. Thank you for considering my application and I look forward to the opportunity to discuss how my skills and experiences align with the needs of your team.

Sincerely,

Heather Baier