

Nicholas Djedjos

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Dear Hiring Manager,

I am writing to express my interest in the Coding It Forward Software Engineering Internship. After learning about it from a LinkedIn connection and the Coding It Forward website, I knew I needed to apply. I am an undergraduate at Columbia majoring in Computer Science with a minor in Biomedical Engineering and believe that my critical thinking and interpersonal skills along with my commitment to engaging in computer science and engineering problems would be an asset to the Software Engineering team.

The Coding It Forward technological commitment to use emerging tech for mission driven technical challenges on the ground problems resonates deeply with me, as I too want to solve pressing problems with innovative engineering and research development. During my Summer Undergraduate Research Fellowship (SURF) this summer, I employed my computer science skills to research clinically relevant drug perturbations in cancer via the LINCS1000 dataset and employed dimensionality reduction methods (PCA, uMAP, t-SNE) to uncover relationships in the gene expression data. With approval from my principal investigator and mentor, I initiated this project, and I used modern statistical techniques like mutual information and clustering from previous scientific papers to look for new biological trends and visualize them using Python. I defined the problem as understanding the overarching genetic structure behind the perturbed cell lines. After exploring the data fully, I proposed a solution that certain experiments were grouped together by similar mechanisms of action. Moreover, as I worked with biologists and computer scientists, I learned to communicate across the aisle to support a common team goal. This skill would definitely be helpful as a Coding It Forward intern, as I would be responsible for working with a mentor and team to develop a product.. Using my work and communication skills, I wrote a final research paper and presented my work to other SURF undergraduates in a symposium.

Beyond the scope of research, I have self-studied software and security engineering topics. I'm currently working as an intern at a Columbia Business School start-up, where I am tasked with integrating the Firebase with our backend web stack. Recently, I competed at HackMIT where I used React.js and Flask to build out a chatbot that located nearby clinical trials. Through these experiences, I've learned how to develop a serverside API and how to fetch JSON results for front-end integration. Moreover, I audited a CodePath CYB101 course where I learned the basics of networking, penetration testing, and Linux. I am ready to apply my skills of taking a software product through the full production cycle, experience with Java in the classroom, project experience with React, and internship as a software engineer to serve the federal government!

I am excited by the opportunity to be on a team that collaborates and works tirelessly to develop public interest technology! Thank you for considering me to join the Coding It Forward team.

Sincerely,
Nicholas Djedjos