

To Capax Global,

My journey to bioinformatics is unique. I inherited a study that was finished with the exception of manually entering information from the research visit documentation and paper survey results into Redcap (Research Electronic Data Capture). I knew what to do. Working with a new colleague we wrote a program that recognizes specific text within the scanned pdf documents and enter it into the electronic database for us. We cheekily named the program UnderGRAD because our request to hire a part time undergraduate student was denied. Each patient entered manually took 15 minutes, UnderGRAD program completed the task in 20 seconds. We had 250 patients with 7 visits each; we saved the department over 400 hours - 10 full time work weeks.

I would bring the same innovation to the University of Chicago. My biggest skill is blending existing data tools with my own scripts and pipelines to solve the question at hand. Currently, I am using a single cell sequencing dataset to preform psuedotime analysis for Antigen Specific T-Cells. This project is a combination of programming and scripting languages, including as python and R. The remaining analysis relies on building a high dimensional data pipeline in the Linux environment. Another component of this project is analyzing with microbiome data using Mothur.

Working full time while earning my master's degree I garnished time management skills. In my current role I've had the opportunity work within a team and even mentor undergraduate researchers. This experience has taught me the importance of both written and verbal communication.

I welcome the opportunity to speak with you more about how I can contribute as a data scientist at Capax Global.

Thank you for your time and consideration,

Nicole Bowers