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Application for Bioinformatics Engineer

To whom it may concern,

I am graduating MSc. student in Computational Biology at Carnegie Mellon University applying for the Bioinformatics Engineer position. I think my diverse background and skills make me a great fit for this position. My undergraduate degree taught me much about the complexities of biological systems and how we can try analyze them through experimentation. At the same time, through my elective classes, internships and extracurricular projects I tried to develop my quantitative skills, mainly programming and analyzing data.

My time working for the start-up Adapsyn introduced me to a fast-paced environment, working with large datasets to help guide biochemists on what to investigate and learning about how to balance what was biologically informative and computationally feasible. Later during my thesis and my research internship I was more involved with developing larger-scale, more comprehensive analyses for research problems. In both cases I spent months curating data, cleaning/processing it, developing methods analysis and presenting my results to my supervisors. Specifically developing pipelines and scripts that were robust and scale well on HPCs and help guide future research.

During my MSc. I have been improving my knowledge of bioinformatic and statistical methods and applying these through research and course projects. Through the practice of writing more code and working as a TA I have developed a strong appreciation and practice of writing clean, readable code and comprehensive documentation. Through courses I learned about the methods and implementations behind various genomic analyses methods, developing pipelines, simulating bacterial populations among other problems. All of this has reinforced my love of poking at data and developing tools to do the poking, especially if those tools can help other researchers. Currently I am also developing my technical skills, learning about and implementing machine learning methods at large scale with pyspark and AWS through coursework.

I feel that my priorities and skills as a researcher align well with platforms like 4DN and CGAP, helping researchers parse through such voluminous datasets to help find the informative parts. I really admire the goal of making data and analysis methods easily accessible to researchers so they can focus on discovery and clinical applications. I would love the opportunity to maintain and develop a platforms like these and I know I would be a great fit for this position.

Thank you for your time and consideration.
Sincerely,
Siddharth Reed