Brian J. Wiley

107 W. Monument St. Unit GC

Baltimore, MD 21202

March 22, 2020

Ms. Anna Lu

Computational Biology & Engineering

Essex Management, LLC

11140 Rockville Pike

Rockville, MD 20852

Dear Ms. Lu,

I am pleased to submit my application for the **Computational Biology and Bioinformatics Internship** position in Rockville, MD with Leidos Biomedical. Currently in my second semester as a Master of Science student in Bioinformatics at Johns Hopkins University, my interests focus on computational genetics and epigenetic regulation in cancer research, specifically hematological cancers and rare disease in children. As such, I am passionate about learning from genetic analysis and regulatory components of genetic disease. My goal is to work in the field of pharmaceutical engineering implementing high powered algorithms to develop small molecule inhibitors for proteins targets in rare disease and childhood leukemias and lymphomas. I believe I can learn a lot from the analysis being performed by Leidos Biomedical of IDH mutations, Li-Fraumeni Syndrome and predisposition to children developing cancer.

Although my previous background was in Finance, I became interested in Bioinformatics during my work at SAP. As such, I prepared for graduate work in Bioinformatics by taking extensive coursework in Calculus, Linear Algebra, Statistics, Biology and Biotechnology, and Computer Science. My current experience includes a Biotechnology wet lab in manipulating DNA in E. coli, Cell Biology lab performing SDS-Page, Western Blot using Turbo Blot, Bradford Assay, Gel Filtration chromatography and Fluorescent Protein Labelling, as well as Organic Chemistry, Biochemistry and Molecular Biology.

I have experience in data visualization from my previous work as an analyst for a solar company, as well as 3 years’ experience with R, Python, Java, and databases such as MySQL, Oracle BI, and SAP Data Warehouse platforms. My recent years in school exposed me to Java and Python in most of my computer science and algorithms courses. The GitHub link below shows my experience in Java, Python, R and Shell Scripting. I also have experience with Linux Ubuntu systems and Markdown which I use for my machine learning assignments. My coding background in Python, R and Java will contribute to my success in this internship role, along with my ability to work across multiple teams in Organic Chemistry, Biochemistry, Molecular Biology and Epigenetics.

In closing, I am a self-taught programmer whose scripts for most of my classes, and my interests extend far beyond the scope of the classroom. I am currently studying Bioconductor in R for NGS and Genomic data analysis. I have experience with various packages for Bioconductor and data structures such as GRanges, SummarizedExperiment, AnnotationHub, ExpressionSet, TxDb, DNAStringSet, BSgenome, BSgenomeViews, and Rle. I have statistics background for analyzing datasets and data visualization in R and Python, along with wet lab experience with bacteria and equipment used to manipulate DNA. I have a passion for learning and helping people through science and medicine. I look forward to an opportunity to further discuss my experience and background as it related to your needs for the Bioinformatics intern position at Leidos. Thanks for the opportunity to apply for this position.

Sincerely,

Brian J. Wiley

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<https://github.com/BJWiley233>(See “Practical-Computer-Concepts-Files” and “Biotechnology- Notebook” repositories for coding and wet lab experience respectively)