

HARSH SAGAR
harsh.sagar2107@gmail.com
6352010302

8nd February, 2024

Optiver,
India

Hello,

I am Harsh Sagar, 5th year Biological Sciences student at IIT Madras. I wish to apply for Data Scientist position at Optiver. I had worked on Detection of Milk Adulterant using ML Techniques project for Summer Research Internship, IIT Bhubaneswar. Analysed milk properties such as foamability, foam stability, foam height etc as the demand for Cappuccino foams has increased. Used Grid search cv for hyperparameter tuning on Random forest classifier, which increased test accuracy to 88.1% from 81.7% also increased roc auc score to 0.953771 from 0.946013.

Worked on the classification of the gene expression of endometrial biopsies as a data science intern at Supratech Lab, Gujarat. To select the genes involved in endometrial receptivity to be included in the ERA, the gene ontology terms with a P value less than .025 were considered significant. For the endometrial receptivity transcriptomic signature, two different comparisons were made, the first was the differential expression of R versus P and E and the second was that of P versus E in the ERA. These statistically significant genes were isolated during the Window of Implantation. Used Grid Search CV for hyper parameter tuning of XGBoost model which was used for prediction.

Working on these internships I have developed extensive knowledge and expertise in the field and gained valuable experience in various aspects of research work. Moreover, my previous roles have helped me to develop and significantly improve my attention to detail and accuracy and gave me a chance to see and feel what it's like to be a part of a deadline-driven and fast-paced business environment. In addition to my experience, I can offer your firm excellent analytical skills and important multitasking and time management abilities. Not only they are necessary for the job but also serve as an evidence of a data-driven mindset which I believe I possess.

Firstly, Optiver's emphasis on utilizing data science to accurately price interconnected financial products in real-time resonates deeply with me. My educational background in Dual Degree Biological Sciences at the Indian Institute of Technology Madras, coupled with my relevant coursework and skill set in data science, statistics, and machine learning, provides me with a strong foundation to contribute effectively to Optiver's quantitative research initiatives.

Moreover, the prospect of working alongside best-in-class professionals from diverse backgrounds in over 40 different countries excites me. I am eager to collaborate with experts in the field to tackle complex data-processing problems and develop scalable solutions that enhance the robustness of Optiver's systems and workflows.

Over and above, I am a good team player also I have ability to compromise, listen to my teammates and always passionate to learn from my seniors. I'm reliable and willing to work above and beyond what is required to get going on any assignment with enthusiasm.