

Shreeharsha

COVER LETTER

Date: October 7, 2022

Dear JPMorgan Chase & Co. Team,

I write this letter to express my interest in doing my year in industry as a 2023 Software Engineer Program in the 12 Month Industrial Placement (London). I am currently doing my MSc in Data Science and Artificial Intelligence at the University of Liverpool in 2022 and have a placement year starting from June of 2023.

I've always had a keenness for learning about data analytics and its use in the various facets of our lives. As someone with a bachelor's and master's degree (where my thesis involved the use of AI and machine learning techniques in speech recognition) not in computer science, I took up an MSc at the university of Liverpool to get complete clarity and a specialization in this field and I believe working at this position could be the next step for me. I have applied to another one job at JPMorgan that matched my interests but I wasn't sure whether it was a placement or not.

My Bachelor's project involved understanding photoplethysmography (PPG) signals and their use for non-contact heart rate measurement which sparked my interest in medical imaging and how machine learning could impact our daily lives. During my Master's degree, I worked on various projects related to assessing children's speech and fluency levels as a research assistant. I had an eye for identifying key peculiarities in the data involved, which allowed me to make novel contributions to improve the performance of the assessing system which is in field use. For example, in a project where I was part of the team developing an initially screening system to classify children into categories based on lexical and acoustic attributes (so as to not overload the speech recognition system), there was a stage of automatically reducing the lexical features into smaller dimensions. Here, I successfully predicted that even though the 5-dimensional feature vector had a better cluster tightness, using a 4-dimensional feature would give a more accurate result because one of the lexical features was surprisingly correlated with the others. Some of our intuitions in reducing the dimensions were proved wrong because of the peculiarities in the data and I enjoyed finding this out. More context is in the "Predicting lexical skills from oral reading with acoustic measures" paper on my resume.

I enjoy discovering, understanding such things and how it created a sizeable impact on the project, our accuracies and also having an impact on society with my work. I've also participated in many challenges and online competitions (mostly to do with speech recognition) which has allowed me to individually test myself and my line of thinking. My fellowship program also allowed me to travel, interact and collaborate with people from diverse backgrounds and organizations across India. I always try to look for clarity and impact in my work, understanding the bottom line and how I can make a difference.

I would like to hopefully continue this trend at JPMorgan and truly work towards something substantial. Thank you for your time and consideration.

Yours Faithfully
Shreeharsha