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Dear professor:

I am excited to apply for the multidisciplinary research position focused on enhancing and personalizing student learning, motivation, and wellbeing by bridging social science methodologies with technology design using human-computer interaction, machine learning, and statistics. The opportunity to work on data science projects that investigate Bayesian methods and algorithms for adaptive experimentation is particularly intriguing to me.

As someone with a passion for both education and technology, I am excited about the prospect of using cutting-edge techniques to improve student outcomes and mental health. The recent Nobel prizes in economics that were awarded for experimentation and causal inference demonstrate the value of using data to make informed decisions, and the field of adaptive experimentation has enormous potential to help users in various contexts.

As a recent student in Applied Mathematics and Computer Science, I have a strong foundation in mathematical skills, programming, and data analysis. Through my coursework, I have honed my analytical and logical thinking skills, which have been instrumental in solving challenging mathematical problems. In addition to these skills, I have also gained experience working with programming languages such as Python. With these solid foundations, I am quite sure that even if some related aspect that I have not learn yet, I can gain basic knowledge and be able to use them in a very short time. I have also learnt something about ML by myself, corresponding to convolution. Finally, I would take a psychology course in this summer term, so basic psychology knowledge will also be gained when I am in this program. So, I believe I have already owned skills to join this team.

I am particularly excited about the opportunity to use Bayesian methods and algorithms to enhance education and mental health outcomes. Bayesian methods allow for more flexible and nuanced analyses than traditional frequentist methods, making them an ideal tool for investigating complex social phenomena. By using these methods in conjunction with adaptive experimentation, we can develop more effective and personalized interventions to support student learning and wellbeing.

Thank you for considering my application. I am excited about the opportunity to work with a team of experts in the field of multidisciplinary research and to contribute to the development of innovative solutions to pressing social problems.

Best wishes,
Qianjun Huang