



March 12, 2025

Dear Members of the Amazon Fellowship Selection Committee:

I strongly recommend Youngseung Jeon for an Amazon PhD Fellowship. I have had the privilege of collaborating with Youngseung over the past year and a half. In our collaboration, Youngseung has been leading an interdisciplinary project focused on developing human-centered AI tools for scientific discovery. This work is **already supported by a collaborative 2024 Science Hub project** ("Human-Centered Design of AI Systems to Support Drug Discovery") awarded to Anthony Chen (UCLA ECE), and John Varghese (UCLA Medical School), and me. In my research advising and collaboration, Youngseung stands out in his **interdisciplinarity as a researcher and leader mentoring younger students.**

In his research, Youngseung integrates theories about human creativity, the human-centered design process, and AI model development. Each requires a distinct set of skills and knowledge, and I have seen Youngseung integrate them all in his work on HAPPIER and GRAPPI. **Youngseung's perspective is that AI models alone are not enough for supporting scientific discovery.** These models must facilitate critical aspects of real scientists' workflows and allow scientists to express what they can. In other words, the development of AI models cannot be totally separate from the settings in which they are intended to be used. **This approach is new and different from much of the existing AI-centric work on scientific discovery.** As a result, Youngseung has been **collaborating with Varghese's UCLA Drug Discovery Lab on Alzheimer's research and exploring additional directions with Morteza Ziyadi at Amazon Applied Science.** An Amazon Fellowship would further the collaborations Youngseung has already sought out in medicine and in CS, including at Amazon, thereby increasing the likelihood of success of this refreshing approach to AI-driven science.

Furthermore, **an Amazon Fellowship for Youngseung would be a longer-term investment in future researchers focused on real-world AI problems.** This is because Youngseung actively mentors students and is able to train them to become productive contributors to his projects. I have seen how through Youngseung's mentorship, students without clear project goals or roles, take ownership of parts of projects and become committed team members. For example, a student who was new to web development was able to implement the entire front-end of HAPPIER with Youngseung.

I am excited to see where Youngseung goes as an **exemplary researcher at the intersection of human-computer interaction, AI, and the sciences!** I can only hope that Amazon will be part of this future.

Please do not hesitate to contact me at emjun@cs.ucla.edu if I can provide any additional information.

Sincerely,

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