

Dear Google team,

I am expressing my very strong interest for the research scientist position in the DeeMind's team. I believe AI is extremely important and Google DeepMind will have an incredible positive impact on the world. I am hoping that my background in leveraging ML and statistics for scientific research, my increasing understanding of the cloud and industry through working at AWS, and my enthusiasm about the future of AI and our relationship with it, will be an exciting prospect to Google's mission of building AI.

During my PhD and postdoctoral research as an astrophysicist, I designed ML frameworks for processing terabyte-scale cosmological data, achieving significant improvements in analysis efficiency. I learned to be confident through rigorous testing and have been adaptive to new environments. I collaborated with students and professors at various institutions, led and participated in sharing research ideas, and gave presentations to technical and general audiences. This experience has honed my ability to tackle challenging technical problems and develop innovative solutions.

At AWS, I took a lead role in the development of AI-powered infrastructure tools that help technical writers effectively leverage LLMs. This work involved learning about evaluation frameworks, thinking on standardized testing methodologies, and creating/testing prompt engineering techniques for templates and tutorials. I was also given the opportunity to learn about cloud infrastructure and various industry AI/ML needs, obtaining an AWS cloud practitioner certification.

I highly value DeepMind's mission in developing AI that is safe and accessible. Building verifiably safe AI through transparent and accessible research will strengthen societal confidence in AI systems. I am hopeful about the opportunity to apply my expertise to help drive innovation with your team. A few key work achievements are listed in the following.

- Independently researched and built code for scientific publications
- Regularly practiced the scientific method in work in order to produce confident results
- Implemented ML in a structured way to streamline large-scale data analysis
- Built automated testing infrastructure achieving above 90% reliability in model validation
- Developed visualization tools, processing multiple large datasets containing above 8B+ data points, to identify patterns in massive astronomical datasets
- Took on lead roles in every company and institution I worked in

I am passionate about solving meaningful problems. If given the opportunity, I will be happy to discuss how my skills and experience align with your team's needs.

Thank you for considering my application.

Best regards,
Matthew Fong

