To Whomever it may concern,

Metaphor is the act of viewing one thing through the lense of another by implicitly using a common pattern that they both share. In programming we name that common pattern, extract it into a function, and find ways to reuse it when facing seemingly different problems. In this way coding finishes what poetry started, but typically only in the limited domain that programming is used for. For the last few years I have wanted to use programming as a lense through which I can view the topics I tend to cover in my poetry.

To be able to make this jump from code to politics, society, and matters of the heart, I stumbled upon Category Theory. What I've learned independently so far has been both exciting and rewarding in the way that I am able to connect functional programming to the way I think in day-to-day life. I am applying to ACT 2019 school because I believe it will offer me an opportunity to go deeper into category theory and see how it is applied in a formal and rigorous fashion to domains outside of math.

By profession I am a senior software developer at ThoughtWorks, a global agile software consultancy, where I have trained, mentored and am currently leading a team. I am also a spoken word poet with eleven years of experience teaching poetry to youth and performing as a feature on many notable stages across the United States including the Nuyorican Poets Cafe, and the original Bus Boys and Poets as well as toured several major cities of South Asia. I am excited about category theory because it helps me unify the dual passion of software and poetic expression. I believe ACT 2019 provides the next step for me into this science of abstraction with the motivation of applying it to the world at large.

Sincerely,

Anirudh Dhullipalla

To Whom It May Concern:

Anirudh Dhullipalla is an exceptional, dedicated, and innovative programmer and spoken word poet. Anirudh's personal and professional skills in the technology and artistic fields, along with his deep interest and exciting application of Category Theory, make him a uniquely-qualified candidate for ACT2019. I have known and worked with Anirudh for more than a decade and I can personally attest to his exceeding intellectual capacity, creativity, and criticality. I recommend him for the ACT2019 programme with utmost certainty.

Academically, Anirudh was trained as an economist at Emory University. He also spent one year studying at the London School of Economics on exchange. After university, Anirudh received a highly-competitive post working at the United States Federal Reserve Board in Washington, DC. Following his work with the US Government, Anirudh took a creative and bold risk by switching career trajectories from macro-economics to computer programming. Anirudh once again landed a highly-competitive placement as a software developer working with the global agile program consulting firm, ThoughtWorks. Over the past few years Anirudh progressively advanced at ThoughtWorks, receiving more responsibility and leadership opportunities in the Chicago, New York, and Pune offices where he has worked as a developer with global financial and airline clients as small various small non-profit organizations. In addition, Anirudh has played a central role in the ThoughtWorks training programme, helping entry level engineers learn various software practices.

At the same time Anirudh was developing his economic and programming expertise, he was also honing his craft as a spoken word poet. Anirudh has spent the past decade performing poems in various cities and in prestigious poetry venues across the United States and India. His poetry reveals a deep understanding of the human condition and our complex social world through powerful personal testimony masterfully crafted in metaphors, imagery, and storytelling. His performances connect these intricately constructed thoughts from the page to the stage with a personal and engaging touch.

Anirudh's current work and ideas are a fusion of his two professional passions. He seeks to make functional programming, and the theory that informs it, relevant and useful to people's everyday life. Inspired by poetry and programming, Anirudh's ideas explore the potential application of functional programming and Category Theory to the complexities that surround identity, interpersonal relationships, and conceptions of peace. It is in this area of critical social sciences, that I believe Anirudh's work can help contribute and innovate the most.

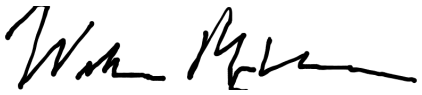
I believe Anirudh asked me to write this letter of recommendation for two reasons. First, I have known and worked with him over an extended period of time. My impressions of Anirudh are crafted from an expansive understanding of who he is and what he does. Second, my own personal work and research intersects with Anirudh's in interesting and relevant ways to this discussion. I am not a mathematician or programmer. My work and doctoral research is in peace and violence prevention education where I explore pedagogical approaches to engaging young people in the complex subjects of peace, equality, gender, and violence. Such work requires simultaneous creative, critical, abstract, and concrete thinking. I believe Anirudh's ideas, using Category Theory to help communicate and translate themes relevant to critical social science, offers pedagogues like myself potentially innovative and promising new tools in the classroom. This is an interdisciplinary area of research and practice that is currently under-examined and ripe with opportunity.

In closing, I believe Anirudh's programming and poetic background make ACT2019 a perfect incubator for his new and exciting work bridging technology and the human condition. I think the knowledge he gains from such an experience could have lasting and meaningful contributions to various fields in the social sciences including my own work in peace and violence prevention education. In my experience, Anirudh has always demonstrated himself to be a dedicated, passionate, and creatively influential professional. If accepted, he will surely make a positive contribution to the ACT2019 programme and will gain valuable experience helping him put his ideas into action. I once again recommend him for the ACT2019 program with utmost certainty.

If you have any questions or concerns, please feel free to contact me directly.

Email: wwm26@cam.ac.uk
Phone: +44 (0)7514 047632

Sincerely,



William W. McInerney

Ph.D. in Education student
University of Cambridge, Queens' College
Gates Cambridge Scholar
Rotary Global Scholar

Relevant Background

I am a software developer at ThoughtWorks, an Agile software consultancy in New York City. I routinely use functional programming concepts in my day-to-day work in mainstream languages like Javascript, C# and Ruby. Most of my functional knowledge comes from informally exploring Haskell for the last 3 years. My curiosity in the theory that guides the language has led me to learn about basic category theory. I'm always looking for ways to apply it to my day-to-day job, but also beyond software development to social and interpersonal issues. More on this in my statement of interest for ACT 2019.

I am currently not in academics and am not pursuing a Ph.D; however I am seriously considering entering academics to explore how category theory can be applied to my areas of interest.

Order of Project Preference

1. David Spivak - Toward a mathematical foundation for autopoiesis
2. Mehrnoosh Sadrzadeh - Formal and experimental methods to reason about dialogue and discourse using categorical models of vector spaces
3. Bartosz Milewski - Traversal optics and profunctors
4. Tobias Fritz - Partial evaluations, the bar construction, and second-order stochastic dominance
5. Miriam Backens - Simplifying quantum circuits using the ZX-calculus
6. Pieter Hofstra - Complexity classes, computation, and Turing categories

Commitment

Barring any unforeseen circumstance I am totally committed to come to Oxford to participate in ACT 2019.