It's taken me some time to realize that I don't want to be an academic. Yet, here I am requesting funding for academic research. I suppose I should explain how I got here.

As an undergraduate I bounced around between several different majors with little desire for anything but finding the most interesting way to the bachelor's degree at the finish line. About halfway through I took my first higher level mathematics course, Advanced Calculus (aka intro to proof writing). This course was simultaneously the most challenging and engaging course I had ever taken. I was taken in by the pure idea of a mathematical proof, and the challenge of writing one once I had solved a problem. Sure, proofs had been presented to me in the three preceeding calculus courses I had taken, but the courses only demanded I learn to make new computations. They never asked me to truly engage with a proof in any meaningful way. About halfway through this semester, completely taken in by the intellectual challenges presented in this course, it dawned on me that my path was set. I had found the most interesting way to the finish line, and it was math.

I proceeded to take as many math courses as I could. During my senior year, I found that the University didn't offer enough higher level math courses to satiate me. To remedy this I set about taking independent study courses in logic, topology, algebraic number theory, and p-adic analysis. By the end of my undergraduate career, it was clear to me that I wanted to become an academic mathematician. Before heading down that road though, I took a detour to pursue a childhood dream.

After graduation I moved to Montana, spent the summer becoming an EMT, and began working as a ski patroller that winter. Graduate school could wait a year or two (actually five). My time as a ski patroller, somewhat paradoxically, was great preparation for graduate school. The obvious benefit from my time as a ski patroller, was the blue-collar work ethic it instilled in me. The somewhat less obvious benefit is that I was constantly learning and solving new problems. Working a job with life and death consequences demands it. After five years, I once again felt the pull of academia. A deep-seated craving for intellectual stimulation had set in.

With that, I was off to graduate school for a master's degree in mathematics, which I earned in 2016. While nearing the completion of this degree, it dawned on me that I did not want to pursue a PhD in mathematics. With this new information in hand, I pivoted my course work towards more applied math during my last semester and took a pair of Big Data Analytics courses. This pivot was essential to my current path as these courses required a bit of programming, and consequently piqued my interest in computer science.

I saw in computer science an opportunity for me to apply my formal mathematical skill set to real world problems, and a career path that could satisfy my intellectual curiosity. This prompted me to pursue a formal education in computer science the following year. I am currently working in the Johnson lab doing research for the Missoula Fire Sciences Laboratory, and because of this I find myself soliciting you to fund my academic research.