I came into studying geology quite by accident. I had an idea of what I wanted to do with my life coming into college that contrasts my current goals career wise. Growing up I loved being outside; hiking, backpacking, skiing. This enthusiasm for the outdoors translated in high school into thinking of pursuing a career as an environmental educator, towards the goal of protecting the earth through education. In college I chose to earn a degree in Recreation Management and I took classes including Environmental Education Skills, Interprettive Methods, Nature Wilderness and American Life, and Resource Management. I served as the interpretation (environmental education) intern for the Mather District of Yosemite National Park in pursuit of my goal. For that position I educated visitors about giant sequoia trees, hiking trails, and wildlife in the park. I also spent three months camping in a tent because housing was full.

Shortly before the internship at Yosemite I found myself in Introduction to Physical Geology. That class was unlike what I had been exposed to in the past, which had focused on nature and resources but with rocks only showing up as an afterthought. I likened the class to a fantastic puzzle where if I knew the rules, I could rewind deformation events and sea level changes to find depositional environments and protoliths. Geology challenged me and excited me in a completely unexpected way and so I decided to pursue it as a minor. In the following classes in the minor, I gave in and changed my career path by double majoring. Choosing to double major in geology and recreation management still could have allowed me to aim for a career in environmental education but in taking upper level geology courses such as mineralogy, petrology, and structural geology I now want to pursue a career in academia as a professor or instructor.

Once a geology major I began to excel in the field and enjoy it even more. I began to do research
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on radiation damage halos in quartz which inspired me to learn more about radiation damage and its applications in thermochronology and metamorphic petrology. I won a university wide research poster competition in the spring of 2018, something I never would have imagined myself doing as a Recreation Management major just 1.5 years prior. Then in the fall of 2018 I presented my research at the GSA annual meeting and I loved it almost as much as I have come to love zircons. I worked as a tutor at University Tutorial Services for four semesters tutoring 4-8 individuals per semester in Introduction to Physical Geology, Introduction to Historical Geology, Environmental Change Hazards and Resources, and Water: Mountains to Sea. I also worked as an undergraduate teaching assistant for two semesters, assisting professors in Introduction to Physical Geology lab sections. In my last semester I worked in the “Answersphere”, a walk-in help lab for intro students to access lab help most evenings. I have enjoyed all of those jobs because they were a challenge where I had to communicate science to someone that had trouble understanding it. When a student came back with a good grade on the latest test, their success was my success. I found the teaching process was rewarding and fulfilling even after five semesters. I think my enthusiasm for teaching will continue throughout my career due to my enthusiastic, obnoxiously determined, and tenacious personality. In my last semester I wrote an undergraduate senior honors thesis encompassing the research I have done over the last two years. Through that process I found that, in addition to enjoying the physical experimentation and field work aspect of research, I also find satisfaction in the literature and piecing together prior studies and my work in writing.

So I did not know I wanted to follow this career path as an 8 year old or even as a teenager that spent a lot of time outside and around rocks, but my experiences at [Uni A] in classes and especially in research over the past three years has cemented in me the desire to learn more about the Earth and teach others about it. My plans just changed from wanting to teach kids and tourists about nature and conservation to wanting to teach college students about the intricacies and effects of alpha decay.

I aspire to attend [Uni B] because I am broadly and enthusiastically interested in metamorphic petrology and Dr. G’s work. I am interested in studying ultrahigh-pressure terranes especially using zircons as a tool. In my undergraduate career I researched radiation damage halos in quartz
surrounding zircons using cathodoluminescence microscopy and developed a keen interest in learning to use zircons as a tool for understanding peak metamorphic conditions. I am interested in Dr. G’s work because I find the unraveling of deformation history and conditions to be fascinating. While I do not have research experience in metamorphic petrology I do feel that my radiation damage research has taught me applicable skills to the discipline such as using the SEM, EDS, CL, and sample preparation proficiency. At [Uni A], Petrology and Petrography was my favorite class and it led me to read about Dr. G’s work in the Western Gneiss Region which lead to reading about her current projects. I am excited about the all of the current research projects and would be happy to work on any of them, especially projects that involve zircons!

I would like to eventually earn a PhD in geology studying metamorphic petrology and tectonics but I would like to first earn a M.S. in Geology. With an eventual PhD I want to become a professor of geology. I feel that University of Nevada, Reno Department of Geological Sciences and Engineering will help me achieve my career goals through the graduate courses offered such as Modern Analytical Techniques in Earth Sciences, and the opportunity to work with Dr. G. Thank you for your consideration of my application.

Best,

[Name]