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Gates Cambridge Personal Statement  
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Fighting numb fingers and wind-whipped cheeks, my professor and I hammered stakes into the snow and set up GPS devices. For hours we traveled amongst crevasses on Taku Glacier in Juneau, Alaska, measuring surface strain rates. The research was cold and exhausting, but I was hooked.

My passion for the Arctic grew out of an interest in geophysics and math and a love for cold and snow. After discovering field research through studying glacial moraines in the Sierra Nevada, I began to explore geoscience and continually found myself attracted to issues relevant to the Arctic. I have since conducted glacier research while traversing the Juneau Icefield, studied ice cores in Copenhagen, visited the Greenland Ice Sheet, interned and traveled throughout Iceland and studied Arctic river ice breakup using satellite imagery for my senior honors thesis. These experiences confirmed my passion for the Arctic, and I now feel confident that I want to devote my life to polar science.

The Scott Polar Research Institute (SPRI) at Cambridge is the best place for me to pursue an MPhil in Polar Studies. Unique in its focus on both polar science and the role of humans in the Arctic, SPRI is one of the foremost polar research centers in the world. For my MPhil, I plan to work with Dr. Poul Christoffersen to model hydrologic and geologic controls on basal flow at Store Gletscher in West Greenland in order to assess the glacier's sensitivity to climate warming and improve the accuracy of models of Greenland's contribution to sea level rise.

At UNC, I have endeavored to share my love for research with others. Through serving as an Undergraduate Research Ambassador, an admissions tour guide and geology teaching assistant and volunteering on academic panels, I have explained my research background and helped connect prospective students and peers with research opportunities. Field research and especially polar science remain overwhelmingly male. In entering this field, I hope to serve as a role model for young women interested in earth science. My leadership training in the Morehead-Cain Scholarship and North Carolina Fellows programs has given me the skills and confidence to progress in my field and succeed as a female scientist.

Sea level rise and climate change are undeniable realities, the consequences of which we are just beginning to face. Understanding the processes controlling the melt and retreat of Greenland glaciers is one of today's fundamental scientific questions, and the results of this research will likely have major implications for policy and industry worldwide. The challenge is communicating this information to a greater audience in ways that are understandable and also inspire action. Raising awareness about polar research has been a significant component of my journey and will be of utmost importance in my career. Receiving the Gates Cambridge Scholarship would allow me to study the Arctic while continually using my research to express the pressing need for public action on polar change. Through this research and outreach, I aspire to become a leader in my field.