
Ryan Erickson

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USDA Forest Service

RE: Geographic Information Specialist position

Dear Mr. Smoczyk,

It is with great pleasure that I submit my application for consideration of the GIS position available for the USDA Forest Service.

I am a recently graduated, first-generation college student from the University of California, Santa Barbara. I began college at Chaffey Community College and after graduating with an AA in university studies focusing on math and science, I transferred to the UCSB Physics Department. After my acceptance, I branched out from typical physics courses and tried out some basic geography classes. It was here I quickly realized I had more passion for geography, the natural processes in the world, and the effects of climate change. I found that there is much more pertinent analysis to be done with regards to the problems we see in the world today and sought out more opportunities to further my abilities as a mapper, and to entice the change I hope to see. In spring 2020, I finished my time at UCSB with a degree in both Geography and Physics.

I quickly became adept in mapping geospatial data sets, GIS analysis and modeling, computer programming (Java and R) and cartography. I also have proficiency in project management and have experience with both QGIS and ArcGIS (Desktop and Pro). My current roles include cleaning data and producing maps, graphs and other visual aids for statistical analysis as well as cleaning data in R with Somayeh Dodge and UCSB's MOVE Lab. Specifically, I am analyzing the associations between mobility patterns and COVID-19 transmission at the county-scale in California. Here I've made some maps in ArcGIS Pro regarding income levels for California county, case and death rates.

I also served as an instructional assistant for an introductory GIS course taught in R this past summer (like a teacher's assistance role but I am not a graduate student yet, therefore I couldn't officially hold the title). In this role I provided additional 1-1 tutoring to students interested in both GIS and computer science and is something that I hope to continue in the future. It was here I also gave a lecture on the use and connections between spatial mapping in R and ESRI's ArcGIS Pro.

These roles are so important to me and my growth that I've dedicated time to these positions for free as it's an opportunity to learn from the best at UCSB and has pushed me to seek out more knowledge from the best, a trait I see in this offered position. This experience has helped me to build my skills as an independent, self-motivated researcher and as an effective team member in a larger research team by collaborating productively with my professor and graduate student mentors as well as with other fellow undergraduates.

My professional goals of pursuing graduate school to conducting meaningful, climate-based research align with the environmental awareness and impacts that the forestry service seeks to contribute through its national forests, making this opportunity especially exciting. I would get to not only learn from the best but apply my abilities to a team focused on making a positive difference for their community and protect our precious forests.

I recently took a trip along the west coast to visit some of our national parks, including Yellowstone, the Grand Tetons, and the Craters of the Moon. It was here I was able to get in tune with nature and see the grandiose wonders the world has to offer. I felt as though I was awakened by this experience, and that nature is the last thing we have left to protect. There's so much to learn from and teach people about our beautiful world in our national parks and my aim through the forestry service would be to not only aid in the protection of our forests and the environments in which I work, but also to continue this journey of learning and teaching to provide awareness to all and being to light the environmental impacts that are destroying our precious forests today. As a San Bernardino resident, I have seen firsthand the devastation of forest fires caused by climate change along the San Bernardino National Forest, Arrowhead, Big Bear, Angelus Oaks and other areas that catch fire almost every year. I have seen my home burn annually for far too long, and it's time to do something about that. Through the visual power of GIS and computer statistics, I hope that I can use the forest service's incredible people, it's data, and it's knowledge to bring more awareness of our national parks and the danger they're in.

The time I have spent working with my current peers and instructors at UCSB has significantly shaped my educational growth, and I am eager to apply my newfound qualifications and knowledge to this position. I know I can bring immediate value to your group, its goals and the forests.

It's been an honor to be considered for this position, and I sincerely thank you for your time. If you require any additional information, I will be happy to provide it.

Sincerely,

Ryan Erickson