

Dear Hiring Manager:

It is my great pleasure to recommend Shahzeb. He is one of the most extraordinary students I've worked with in my 20 years of experience across academic, private & nonprofit sectors. I supervised Shahzeb's innovative action-research project on prioritizing fuel treatment to prevent wildfires in California's communities. Throughout the course of our collaboration, I've found Shahzeb to be curious and tenacious, as he sought to understand the underlying causes of wildfires, unafraid of making his way through PhD-level research papers and teaching himself large-scale data analysis of remote sensing satellite data. Throughout the course of our collaboration over the year, I've been impressed by Shahzeb's curiosity and ingenuity. These characteristics coupled with his grit and tenacity as he taught himself new concepts and tools, is leading to important and actionable results that bolster wildfire resilience for communities across California.

When I first began working with Shahzeb in February 2021, he asked a simple question: how can we prevent mega wildfires? Shahzeb's research question was particularly novel, since the majority of new technologies in wildfires has been focused on early detection wildfires so that they can be suppressed quickly. Shahzeb surprised me with his unconventional question and his approach to reduce dangerous fuel loads around communities. He then impressed me with his ability to take high level pointers on concepts and data sources and then deep dive, all by himself, reading research papers and conducting computationally intensive analysis of large-scale satellite sensing data to identify at-risk communities that are near hazardous fuel loads. Additionally, Shahzeb has displayed a maturity in large-scale data analysis that I would put on par with senior data scientists that I recruited when I was CEO of a data analytics company, which is why I consider him to be extraordinary. For example, Shahzeb independently identified additional datasets of population and property and devised algorithms to correlate these datasets with satellite fuel datasets that I had pointed him to, and by correlating these datasets, he created a ranking of communities that would benefit from landscape fuel treatment programs. Then, to verify whether the satellite data sets of forest fuels that he was analyzing was accurate, Shahzeb made field trips to visit communities in person to confirm that their proximity to fuel loads put them at risk of mega fire damage. It was a privilege for me to witness Shahzeb's ingenuity and persistence through the many data challenges as he pursued his research question, with single-minded focus and grit.

Shahzeb's personal qualities are as impressive as his intellectual accomplishments in data analysis. I have found Shahzeb to be a curious and resourceful self-starter, who has the grit and determination to see a research problem through to concrete outcomes. And so Shahzeb wasn't simply satisfied with devising algorithms for data analysis, because he ultimately wanted to see his results leading to outcomes that actually improve wildfire resilience in communities, starting with his own county, in Santa Clara county. Shahzeb familiarized himself with the wildfire preparedness plans that his local county government undertakes, and we are now in the process of taking Shahzeb's analysis and results to local county officials so that his results are incorporated into community wildfire preparedness plans. This "get-it-done" mindset is an important personal quality that will, I believe, allow Shahzeb to have real impact on any problem he goes to solve.

Please do not hesitate to contact me if you have any questions.

Sincerely,

Anukool Lakhina

Anukool Lakhina, Ph.D.
Managing Partner, Wonder Labs
Former CEO, Guavus, a Thales Company