Letter of Motivation

I am Saad Mohsin Khan a final year electrical engineering student at NUST. Even now being an electrical engineering student and knowing all the basic stuff regarding my world there was still something missing and I never knew what it was till the time when I was introduced to Google Summer of Code and I came to know about aerospaceresearch.net as well as the KSAT organization. I always wanted to work on satellites and spacecraft since I believe that these are the best applications of my engineering. I am not an aerospace engineer but, in the time, that I had I got to learn so much about satellite dynamics and control. From inertia to disturbance torques and from disturbance torques to magnetic torquers I think I know some of the basic stuff and it was so satisfying to study and think about working on these systems that I decided to enrol myself for the specialization on Spacecraft dynamics and control by University of Colorado Boulder on Coursera. Besides this I was more aroused by what aerospaceresearch.net and KSAT were doing in this domain. Aerospaceresearch.net has motivated me to improve myself so that I can work for spacecrafts their projects such as Direct Demod and orbitdeterminator are extremely important steps towards making working in space open source. Furthermore, the small satellites association at university of Stuttgart is contributing immensely in this domain and I am impressed by their CanSat Challenge which I think is a great way for students to know what can be expected of them in any project. I am motivated towards working for KSAT this summer and I think I have the time because I have almost finished my FYP and due to the online classes there would not be a summer semester just a simple end of semester exam for four subjects where 3 of them are non-technical so I think that I would have the time to finish this project.

Do you state which project you are applying for and why you think you can do that?

Well I have applied for the specific spacecraft system implementation project where I would extend the ESDC system for Attitude determination and control system. As I have informed you in my motivation letter that I am an electrical engineering student with no background on aerospace engineering however still I have managed to research immensely on this stuff which can be highlighted from my project plan. Furthermore, my motivation letter does highlight my hunger for learning. Furthermore, as far as coding the system on Octave is concerned, I have done several projects along with two 4 credit-hour courses having labs on MATLAB so I think I can code and complete the project in due time.

Did you do push code to the existing code?

I ran the ESDC system on Octave and it is up and running I had to make some changes in the files to make it work with my Octave.

Wild Space Impress us!!!

Well I have about 15 minutes lets see ……

I have a great interest in cubeSAT and I would reallylike to get involved with a team making it and basically learn stuff. It is expensive for me to go out there and build my own CubeSAT in Pakistan however I would want to work on an opensource cubeSAT project. I know this won’t impress you but it is just a request that in any case do guide me on how to build my profile so that I can also become a part of this community.

Well I have a story which might impress you………..

I weighed 95 Kg when I was in my first semester and I really wanted to loose weight. However, to do such a thing you need an extremely strong motivation such as for me it was: -

* Going to buy a jeans from the market and seeing that even though your waist is 40 but you need a size 42 due to your thighs and then feeling highly ashamed.
* Seeing your uncle call you “uncle Tom” whenever he saw you in baggy jeans.
* There was a lot of difference in terms of physical appearance between me and my friends it was so strong that I seemed like the fluffy pillow standing between them.

When I came to the university, I wanted to loose weight but never knew how? In my second semester I started going for a morning run for about 0.75 miles that was the best that I could do at that time. I kept going and running for several months and by the end of second semester I lost about 85 Kgs and was running about 1.8 miles. 85 Kgs was good but there wasn’t enough change in my physical appearance, however I did nothing about it yet and maintained it over the summers. When I came back to the university for my 3rd semester I started running on the road instead of the running track just because the track was 10-minute walk away from my hostel.

There are no smooth stories in life there are always speedbumps present here and there which slow you down. Guess what after running for 3 days on the road I got ‘runner’s knee’ and my right knee was in so much pain that I had to on the 4th day stop while running and literally drag my foot to the hostel. Right now, I thought that this might be the end of the line for me. However, I just knew that I cannot give up this easily. So, I researched on how to fix this and found out that I had to reduce my running to 0.75 miles accompanied by some stretching exercises. My 3rd semester was extremely tough for me since it was difficult to see myself start from the beginning, but I kept going out for the next 2 months after which I started increasing my miles slowly to 1 and 1.2. Then during my dieting and calorie counting days I jumped from 1.25 miles to 3 miles and I was doing it in 40 minutes. The continuous 3 mile running and the calorie counting made me reduce 10 Kgs in 5 weeks. Well, now I can run up to 12 kms in an hour. My colleagues used to come to me and ask me to wake them up in the morning for the run but I had only one thing to say to them

“The moment you wake up in the morning on your own and go out for a run is the moment you would enjoy it and start making it a habit.” Saad Mohsin Khan