

# SHIVAM KUMAR

Final Year Undergraduate  
Department of Computer Science and Engineering  
Indian Institute of Technology, Kanpur

shivamkm07@gmail.com   
shivamkm   
shivamkm07   
+91-9129085031 

To:

Tanmay Gopal  
CEO, Hasura

October 16, 2020

Subject: **Application for Software Engineer Position**

Dear Mr. Gopal,

I am a final year undergraduate at IIT Kanpur, majoring in Computer Science & Engineering. Please consider my application for software engineer position at Hasura.

I have explored several sectors of Computer Science during my stay at IITK, the notable ones being Parallel Programming, Cryptography, Functional Programming(Haskell), Propositional logic etc.

I have worked extensively for nearly an year on Data Race Detection in Task-Parallel Programs and came up with a novel race-checking algorithm called TUSKER. It is found to incur significantly low space as well as time overheads, performing better than all other SOTA in the same domain. I have also dealt with several of the standard parallel libraries including Pthread, Intel TBB and OpenMP.

With regard to my ability to meet specific requirements for the job:

- **Language:** C/C++(Proficient), Python(Proficient), Haskell(Moderate), Java(Moderate), PHP(Basic), JavaScript(Basic)
- **CS Fundamentals:** Sufficient knowledge of CS basics like Compilers, Operating Systems, Algorithms, DataBases etc.
- **Engineering Aptitude:** Experience with several tools including MySql, MongoDB, LLVM, TensorFlow etc.

I have also implemented several of the key projects in different fields including designing java compiler using PLY, implementing decoder for several popular ciphers, building a fully-functional MERN application etc.

There must be several applications for the same. However, I do believe that with my keen interest in working around the latest technologies, pre-existing skills and perseverance, I can be an integral part of Hasura.

I, therefore, sincerely request you to consider my application for the role and give me an opportunity for proving myself. I have attached my resume and gradesheet with the application.

Thanking you for your valuable time.

Regards,  
Shivam