

# Avinash Singh

## VR & Software Developer



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## Education

Dual Degree | Metallurgical and Materials Engineering IIT Kharagpur | 2021

Class XII  
Doon Sr. Secondary School | 2016 | 87.6 %

Class X  
D.R.Amin | 2014 | 81.3 %

## Skills

Languages: C, C#, Python, HTML, CSS, Latex; basics of PHP, C++.  
Simulation/Development : Unity, Unreal Engine.  
Design : Blender, Adobe Photoshop, Adobe Premiere Pro, Lightroom.  
Specialized Libraries: Vuforia, ARCore; basics of OpenCV, tensorflow.  
Other: MS Office, Adobe AE, Basics of Arduino, Git, react-360.

## Extra-Curricular

Part of football team of IIT Kharagpur at Spardha, IIT BHU, 2018-2019.

Represented IIT Kharagpur's Chess team at Spardha, IIT BHU, 2019-2020 in which the team scored 6th position.

Designed a healthcare product for the product design team of Rajendra Prasad Hall of Residence, 2017-2018.

Member of Chess Team of Rajendra Prasad Hall of Residence, 2018-2019.

Won multiple accolades at district level in chess.

Member of Technology Film-making and Photography society, 2018-2020.

## Internships

- May-June'19 Summer Intern MerakiVR, Bengaluru  
Worked on a social documentary as a stitcher and assisted the shoot.  
Developed a virtual reality training module for road safety.  
Built a windows app for a handloom museum which had a footfall of 200+ on a daily basis.
- April-June'20 Summer Intern Nowyk, Gurgaon(wfh)  
Worked on a foot detection and measurement app.  
Developed an app for measuring distance between two points.  
Annotated and re-trained a faster\_rcnn model for foot detection, and converted the model to tflite for running it on mobile phones.  
Developed a OpenCV plugin for unity.

## Research and Projects

- May '18 Safety Analytics and Virtual Reality Lab, IIT Kharagpur  
Deployed complex blueprint setup to simulate accident scenarios.  
Used blueprint simultaneously with inbuilt animator: Matinee, to simulate real world physics.
- Jan-Mar '19 Product Design, Technology General Championship, IIT Kharagpur  
Member of the silver winning team which designed a manual CPR.  
[Developed a 3d model using blender and created an animation.](#)
- Personal Projects  
[Designed and developed portfolio using HTML, CSS, and PHP.](#)  
[Designed 3d models as a part of daily challenge for a week.](#)  
[Developed apps using C# and Windows Forms in VS.](#)

## Bachelor Thesis Project

- Ongoing Safety Analytics and Virtual Reality Lab, IIT Kharagpur  
Modeled a ferrous alloy plant. Created appropriate materials.  
Assembled the factory in a game development software(unity) for viewing in virtual reality. Created colliders for each object.  
Overhead Crane movement and player movement coded through C#.

## Position Of Responsibilities

- Jul'18-Apr'19 Design Team head of the departmental fest - COMPOSIT  
Designed the logo and cover photo using Photoshop and Illustrator.  
Administered all the design-related work concerning the fest.
- Jul'18-Apr'19 Kshitij Campus Affiliate  
Facilitated the fooding, lodging, and travelling of high profile dignitaries visiting the campus during the fest.

## Achievements

- Mar'17 Open IIT Case Study, IIT Kharagpur  
Secured the third position in openIIT, 2017-2018.
- Feb'20 Smart India Hackathon  
Secured the first position in internal hackathon of SIH, 2020.  
Qualified for national finals for the respective problem statement.

## Electives and MOOCs

- Electives Programming and Data Structures, Engineering Drawing and Computer Graphics, Partial Differential Equations, Computer Applications in Metallurgical Processes, Language Processing for e-learning
- MOOCs Building modular levels for games with unity and blender; Computer Science - Virtual Reality by Prof Steven Laval