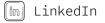
# Avinash Singh

Software Development Engineer











#### **EXPERIENCE**

#### AMAZON DEVELOPMENT CENTRE INDIA | SDE-1

July 2021 - Current | Bangalore, India (Remote)

- → Created end to end working model for calculating margin of error on relevance scores using bootstrap sampling and implemented it using a batch job
- → Created end to end model for calculating percentage relevant matrices and implemented it using a parallel batch job. Optimized it for faster performance
- → Fully automated custom sampling, a previously manual process, using an AWS activity, and a parallel state lambda, and created a ipython notebook for customers
- → Migrated multiple packages to AL2 to mitigate associated software risks
- → Worked on AWS architecture such as EMR, Batch Jobs, SQS, Lambda, Activity, SNS, Event Bus, Redshift, Cloudwatch, Athena, S3, Cloudformation, Step Functions

NOWYK | AR/ML DEVELOPER INTERN

April 2020 - June 2020 | Gurgaon, India (remote)

- → Created a realtime markerless foot detection and measuring app using ARCore, OpenCV, and mediapipe in Unity using C#
- → Developed an app for measuring distance between two points using depth-API and developed an OpenCV plugin for Unity
- → Trained a mediapipe model for foot detection using the graph visualizer

**MERAKI** | VR/Software Developer Intern

May 2019 - July 2019 | Bangalore, India

- → Developed a virtual reality training module for road safety using C# and Unity
- → Modeled 3d objects and created a 360 3D animation for tutorial using blender
- → Assisted and stitched a 360 social documentary on the queer community
- ightarrow Built and tested a windows touchscreen application for a handloom museum

### **PROJECTS/ COMPETITION**

PORTFOLIO | HTML, CSS

Jan 2020 - March 2020

→ Designed and developed portfolio from scratch and hosted it on github here

#### SMART INDIA HACKATHON | NATIONAL FINALIST

Jan 2020 - August 2020

- → Trained a faster RCNN model for pedestrian detection and a SSD model for detection and classification of traffic signs
- → Extracted the ROI and used Optical Character Recognition to recognize speed limit in the frame in realtime using Pytesseract
- → Obtained listed speed of the road (GPS Location) using Snap to Road API and predicted speed limit using Local Insights

**BACHELORS' THESIS PROJECT** | SAFETY ANALYTICS AND VR LAB, IIT KHARAGPUR July 2019 - April 2020

- → Modeled and textured a ferrous alloy plant using Blender3d and photoshop
- $\ensuremath{\:\raisebox{.4ex}{\Rightarrow}\:}$  Created prefabs, and animations and set up colliders and triggers for objects
- → Imported and set up the factory in Unity, integrated oculus and created crane, and hook movement and operations

#### **EDUCATION**

#### **IIT KHARAGPUR**

DUAL DEGREE (M.TECH. + B.TECH.) IN METALLURGICAL AND MATERIALS ENGINEERING
July 2016 - April 2021 | Kharagpur, W.B.

Cum. GPA: 6.74 / 10.0

#### DOON SR. SECONDARY

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April 2016 | Muzaffarpur, Bihar Percentage: 87.6%

## D.R. AMIN MEMORIAL SCHOOL

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April 2014 | Vadodara, Gujarat Percentage: 81.3%

#### **SKILLS**

#### **PROGRAMMING**

Proficient:

C++ • Python

Experienced:

C# • HTML • CSS

Familiar:

SQL • Typescript

#### LIBRARIES/FRAMEWORKS

Pandas • Boto3 • Spark • Jupyter Notebook • Jinja

#### TOOLS/PLATFORMS

Git • Docker • Adobe Suite • Unity • Blender

#### EXTRA CURRICULAR

**Sports**: Represented the institute in chess at Spardha, IIT BHU and secured 6th position among 20+ teams

**Sports**: Represented the institute in football at Spardha

**Gaming**: Semi finalists for CS:GO at the event XRIG-Supernova in SF, 2020