Avinash Singh

Software Development Engineer

🏠 Portfolio 🐙 github 💼 LinkedIn ✉ Personal Mail 📞 Personal Number

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 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
- ➔ 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
- ➔ 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
XII
April 2016 | Muzaffarpur, Bihar
Percentage: 87.6%

D.R. AMIN MEMORIAL SCHOOL
X
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: Qualified for the semi finals for CS:GO at the event XRIG-Supernova in spring fest, 2020 among 30+ teams