

Avinash Singh

Software Development Engineer

 Portfolio  Github  LinkedIn  Personal Mail  Personal Number

EXPERIENCE

PAZCARE | SDE-1

May 2022 – Current | Bangalore, India

- (Ongoing) Designed and developed backend of a BNPL project(OLTP architecture)
- Created schema using amplify GraphQL and deployed it using AWS amplify
- Set up a CI/CD pipeline for deploying a Lambda and API Gateway through Zappa
- Set up authorization for the project and implemented ACID for DynamoDB
- Created extensive filters and search using AWS OpenSearch
- Created and documented multiple REST APIs using restful flask
- Created event based modules for async operations using DynamoDB Streams

AMAZON DEVELOPMENT CENTRE INDIA | SDE-1

July 2021 – May 2022 | Bangalore, India (Remote)

- Worked in a 10 person team to create end to end pipeline for generating search relevancy metrics for Amazon Search using several microservices
- Created end to end working model for calculating confidence interval on relevance scores using bootstrap sampling and implemented it using a batch job
- 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

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
- Built and tested a windows touchscreen application for a handloom museum

PROJECTS/COMPETITION

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

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. Set up the factory in Unity and made it interactive

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:

Python • C++

Experienced:

HTML • CSS • SQL • GraphQL

LIBRARIES/Frameworks

Flask • Pandas • Boto3 • Jupyter Notebook • Jinja

TOOLS/PLATFORMS

Git • Docker • AWS - Amplify, DynamoDB, Appsync, Lumigo, Route53, Certificate Manager, IAM, Secrets, EMR, Batch Jobs, SQS, Lambda, Activity, SNS, Event Bus, Redshift, Cloudwatch, Athena, S3, Cloudformation, Step Functions • Adobe Suite • Unity

EXTRA CURRICULAR

Sports: Represented the institute in chess and football at Spardha, IIT BHU

Gaming: Semi finalists for CS:GO in SF, 2020