

Software Engineer II

Playment

May 2019 - Present

Jarvis - Internal Tool (<https://jarvis.playment.io>)

- It's used to configure tasks in an Annotation tool for Data Labelling like Classes, Attributes, toolbar etc.
- Created features like media Uploads/Downloads, Project metrics Dashboards, Project Analytics Dashboards.
- Setting up QC metrics tool into JARVIS for LiDAR segmentation.
- Setting up RBAC(Role based access control) into the application.

Player App - Annotation Tool (<https://app.playment.io>)

- This tool is used for data labelling like creating bounding boxes(2D and 3D) for 2D images/videos and Lidar (3D) tasks.
- Created features like Recall checker, enabling labelling in APC (Aggregated point cloud) mode, AI assistance for Raster segmentation, One click cuboid Creation for Lidar labelling, enabling multiselection of attributes in task and Ruler tool for QC.
- Bug fixes or Enhancements in tool and code refactorings.
- Implementing Lidar Segmentation feature from scratch, Implementing grid support in Lidar Segmentation for point cloud coloring optimizations and performance.
- Setting up Sonarcloud into the project regarding code coverage and writing unit test cases in jest and mocha for the tool.
- Setting up functional test cases into the codebase from scratch using mocha and headless chrome browser and setting code coverage analysis in sonarcloud.
- Instrumenting source code to get code coverage report for automation test cases.

Website - Playment Site (<http://playment.io>)

- Done bug fixes and enhancements into sites.

Software Engineer I

Fusioncharts

March 2018 - April 2019

Charts.com - Website

- It's a site showcasing muze (Data Visualization Library) using technologies like ReactJS, Redux-thunk, server-side rendering, Express JS, Node JS, Handlebars, Webpack, DynamoDB and AWS.
- Created a chart gallery and Code Editor to edit and run muze code on the website.
- It's an Open Source library for Data Visualization Which enables you to create composable, complex & interactive data visualizations in Javascript by implementing grammar of graphics.
- Done some major bug fixes like layout fix, chart title alignment fix, chart legends fix and some minor fixes like font correction, null pointer exceptions in title etc.
- Created Autotest runner called Moriarty for bulk image comparison to compare bulk images for new releases to compare the chart differences using Puppeteer, OpenCV libraries.

MEAN Stack Developer

Recrosoft Technologies

September 2017 - February 2018

Beacon App - website (<https://greylabs.in>)

- Worked on a bus tracking application called Beacon app to track their children's bus by their parents.
- Created backend APIs and frontend UI using AngularJS, Express, NodeJS and MongoDB.

LANGUAGES AND TECHNOLOGIES

Programming Languages - C++, Javascript, Python 3.x(Basic), GoLang

DataBase - MYSQL, MongoDB, DynamoDB and Redis

cloud - AWS, Heroku

Web Frameworks - Bootstrap 4, Material UI, Antd and semantic UI

Frontend Technologies - ReactJS, Redux, redux-thunk, D3.js, vue.js, Three.js, Javascript, JQuery, Lodash, SSR, WebRTC, Socket.io, Typescript, node.js, express.js, Object-Oriented programming.

Tools - Webpack and babel

Testing Tools - Mocha, chai, jasmine, phantom and Jest

IDE - VSCode, Sublime, Notepad++, Codepen, JSFiddle, Github, Bitbucket and Terminal

EDUCATION

Dhanbad, India

Birsa Institute of Technology

July 2013 - June 2017

- B.Tech in Information Technology. CGPA: 7.82/10
- Undergraduate Coursework: Data Structures, Design and Analysis of Algorithms, Computer Architecture, DBMS, Operating Systems, Software Engineering.

ACHIEVEMENTS

- Successfully completed HacktoberFest 2019 and 2020.
- Got 80th Rank globally in TCS Codevita 2016 (Season V) Organised by TCS.
- Completed Capgemini Tech challenge 3.0 with 90% score.
- Branch Topper in 3rd, 6th and 8th Semester.
- Coordinator and Problem setter for the coding fest in my college.
- Qualified AIEEE - 2013 with AIR 35000 and JCECE Examination with AIR 1030

PROJECTS

Charts.com - Site Showcasing Muze Library

- It's a website to showcase various Charts created using Muze library.
- Created charts Gallery and code Editor to create various charts or modify the config of predefined charts in the site.
- Created this site using ReactJS, Webpack, NodeJS, Express, Handlebars, Server-side rendering, DynamoDB, CloudFront and EC2.

Link: <https://charts.com/>

Muze.js - Composable data visualisation library with a data-first approach

- Muze is a data visualization library which uses a layered Grammar of Graphics (GoG) to create composable and interactive data visualization for the web.
- It uses a data-first approach to define the constructs and layers of the chart, automatically generates cross-chart interactivity, and allows you to override any behaviour or interaction on the chart.

Link: <https://github.com/sanjaymahto/muze>

File system - File system explorer for web browsers to view your files and folders

- File System explorer-like operating system with searching, creation and deletion feature.
- you can create a new file or folder into the directory, view files and folders in that directory, sort them according to size and can rename them.

Client Side Link: <https://github.com/sanjaymahto/file-system-in-web>

Server Side Link: <https://github.com/sanjaymahto/fileSystemWebServer>

Hierarchical data representation - Directed acyclic graph (DAG) manipulation using D3.js

- DAG Representation on canvas using D3.js library, where you can manipulate each node, add new nodes, delete node and update node.
- you can add events to each node as well like click, hover, focus etc.
- you can restrict the opening and closing of nodes to a particular level as well.

Link: <https://github.com/sanjaymahto/hierarchical-data-representation>

View more projects on Github: <https://github.com/sanjaymahto>

HOBBIES

- Playing outdoor sports like football, cricket and badminton.
- Doing OSS (Open source) contributions.
- Playing flute and ukulele, Vlogging and Backpacking