Manoj kumar sial

Software Engineer | Problem solving | Artificial Intelligence | Data structure and algorithms

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WORK EXPERIENCE

EazyByts Infotech

Software Developer   April 2024 - - May 2024

- Created an Inventory Management application. It is a web application to simplify small businesses to keep track of their products. Implemented user authentication (signup, login, and password recovery) using secure JWT-based access, ensuring user data protection.
- Collaborated with a team of 7 to implement a RESTful API using Node.js and Express, enabling 30% faster data transfer between the front-end and backend modules.
- Integrated JWT-based authentication to secure user access, improving application security by 35%.

EDUCATION

Indian Institute of technology Roorkee

Bachelor of Technology in Computer Science And Engineering   November 2021 - May 2025

PROJECTS

Differentially Private Generative Adversarial Network   Feb 2024 - April 2024

- Created a Model that generate synthetic data from the real data and It will also predict future frame of a video and help to get lost or encrypted data. Used PyTorch, TensorFlow and GAN models.
- Implemented differential privacy mechanisms, including Laplace noise and exponential mechanism, to ensure privacy of user, enabling secure data generation while mitigating risks of privacy.

Stockify (Trading Platform)   February 2024 - April 2024

- Developed a comprehensive trading platform that allows users to place trades, buy and sell stocks in real-time, and access detailed information about various stocks which are listed in the NSE.
- The platform is designed to provide an intuitive and seamless trading experience, enabling users to make informed decisions quickly and efficiently. Used: React.js Node.js, Express.js, RESTful APIs and MySQL.

SIC/XE Assembler   March 2023 - April 2023

- Developed a 2-pass assembler for the SIC/XE machine using C++ to translate assembly language programs into object code. Supported multiple control sections and generated output files, including object code, tables, and comprehensive error reports.
- Implemented features such as a symbol table and Listing file to enhance functionality and usability.

Design and Implementation of Configurable Cache Simulator   September 2022 - October 2022

- Spearheaded the design and implementation of a versatile configurable cache simulator in Verilog, enabling users to simulate and analyze various cache architectures.
- Incorporated the LRU page replacement policy, resulting in enhanced cache performance.

Fakify (Fake Image Detection)   September 2024 - December 2024

- Tech-Stack: TensorFlow, Keras, GAN Model, OpenCV. September
- Designed and implemented machine learning models, including Generative Adversarial Networks (GANs), to accurately classify images as fake or real.
- Fine-tuned Xception models on curated datasets, utilizing transfer learning and advanced optimization techniques to enhance detection accuracy.

Voice controlled hoverboard   April 2022 - June 2022
- Tech-Stack: JAVA, Google Voice Recognition, TensorFlow Lite.
- This hoverboard is controlled through a voice command receiver via an Android application, and a Bluetooth device is used to capture voice commands.
- Rechargeable lithium-ion batteries power it, and a standard model will have a gyroscope, microprocessors, and a motor that detects weight and pressure.

Video Streaming with RTSP and RTP Protocol   August 2023 - November 2023
- Tech-Stack: RTP, RTSP, OpenCV, FFmpeg.
- Developed a real-time video streaming application using RTSP (Real-Time Streaming Protocol) to control the media stream and RTP (Real-Time Transport Protocol) to deliver audio and video data over the network.

SKILLS

- Computer languages: JAVA, C++, Python
- Software Packages: MY SQL, NoSQL
- Frontend: HTML, CSS, JavaScript and React.js
- Backend: Node.js, Express.js and RESTful API design
- Languages Known: English, Hindi, Odia

AWARD

Global Rank 7   CodeChef Starters 150 Division 3

Global Rank 88   CodeChef Starters 149 Division 3

Global Rank 222   CodeChef Starters 153 Division 3

Global Rank 604   CodeChef Starters 146 Division 2

Global Rank 604   CodeChef Starters 151 Division 2