Abil Manoj
Software Engineer

Accomplished Full-Stack Developer with a passion for technology and a proven track record of delivering high-quality software solutions. Enthusiastic about pursuing exciting opportunities to contribute expertise and drive to learn. Extensive experience in diverse tech domains, proficiency in Software Development Life Cycle, Agile methodologies, and a commitment to SOLID principles provide a strong foundation for any software development role. Forte lies in crafting high-quality code and actively participating in decision-making processes, while also bolstering and enhancing the infrastructure. Recently completed a Master's in Advanced Computer Science from the University of Birmingham. Actively looking for challenging positions that can harness my skills and drive innovation in the tech landscape.

Contact

Phone
+44-7833810586

Email
abilmanoj1@gmail.com

Address
Flat No: 4, The Motorworx,
46 Selly Hill Rd, Birmingham, UK
B29 7DL

LinkedIn
https://www.linkedin.com/in/abil-manoj/

Skills

Backend Development

Java , Python, Spring Boot, JUnit, ExpressJS, NodeJS, Solidity, API development, 3rd Party API Integration

Frontend Development

ReactJS, Redux, Javascript, Material UI, HTML, CSS, Styled Components, API Integration

Technologies

Amazon AWS, Kafka, Docker, Recommendation Systems, Machine Learning, Blockchain, DeFi, Large Language Models, Web3, NLP

Databases

MySQL,PostgreSQL, MongoDB

Version Control

Git, GitHub, GitLab

Experience

2020 - 2022
Dexlock Technologies , India
Software Engineer   Spring Boot | ReactJS | NodeJS

- Cryptocurrency based strategy composer - *Version 2*
    - Designed a micro service using Spring Boot for the creation of custom JSON instruction generating strategy execution plans for investing in the different assets in different DeFi protocols to produce maximum yield. This enabled third party developers to develop new investment strategies for vault assets thereby increasing the number of better performing strategies which led to 55% more profit generation for vault depositors.
    - Co-developed a graph data structure that holds 10000 crypto assets as vertices and integrated functionality for swapping assets onto edge class b/w vertices. This helped maintain large number of crypto assets in memory along with swap logic, which helped fetch optimal path for swapping tokens 25% faster thereby reducing overall time to swap.
    - Developed micro service using Spring Boot for third party developers to create crypto asset graphs based on the class abstraction Yieldster provides and upload asset & protocol subgraph to Yieldster's master graph after verification, in order for bringing in more optimised crypto token swap path for maximum yield generation. This enabled the platform to invite developers to build better sub-graphs along with their custom token swap logics, which resulted in more optimal and cost-effective options for token swapping thereby reducing expense for the platform by 16% and its users by 20%.
    - Implemented an order balancer micro service using Spring Boot for fractionally trading a token pair from different liquidity pools based on real time LP analysis and ML predictions instead of swapping tokens from a single pool. This helped maximise the number of final tokens received after swap thereby boosting profits for the users by 8%.

- Cryptocurrency based strategy composer - *Version 1*
    - Created the frontend of the application using React JS where users could deposit, withdraw, view token, get currently locked assets in the vault and change or edit the strategies. This helped regular users use crypto platforms with ease.
    - Implemented the frontend logic for handling delayed transactions where instead of performing a transaction on the spot, the frontend with the help of backend will notify the user the transaction that they are supposed to complete based on any vault strategies they have implemented. This helped take away the burden from the users of a fundamental issue with blockchain, that is, to not log off from the frontend screen when a batched blockchain transaction is happening. This also enabled users to re-initiate a failed transaction without redoing the whole transaction process, thereby saving up to 1000 ether per month in transaction cost of all users combined.
    - Designed an SDK for external crypto protocol websites to render UI within application and interact with backend for performing DB or blockchain operations.

- Template Listing Website
    - Generated a website which listed different types of templates with ReactJS, done as part of learning frontend.

Education

University of Birmingham

Master's in Advanced Computer Science

2022-2023 | Grade : 2:1

Rajagiri School of Engineering and Technology

Bachelor's in Computer Science Engineering

2016-2022 | CGPA : 7.3

Projects

Recommendation Engine

- Developed a hybrid recommendation system making using of BERT feature extraction for content based filtering and Graph Convolutional Network for Collaborative based filtering thereby providing better recommendations.
Masters Degree project , 2023

Yieldster V2

- Optimised the performance and implemented additional features such as better scaling, order balancing and automated advisors to yieldster v1. This project enabled the swapping tokens within several intermediary states of tokens which maximises the final token count.
Dexlock , 2021 - 2022

Yieldster V1

- A DeFi automation platform where a user could invest an asset to a vault and the vault will deposit that asset into one/many of the high performing DeFi protocols for maximising the user profits.
Dexlock , 2020 - 2021

Template Listing Website

- Created the login screens and customer dashboard for viewing all the downloaded templates.
- Developed the tile cards for displaying each template when displaying templates in the Home Screen.
Dexlock , 2020

Cryptocurrency Exchange

- Created a simple cryptocurrency exchange as part of learning about DeFi in ethereum blockchain.
Freelance,2020

Password Manager using Blockchain

- Developed a password manager system to securely store passwords in Ethereum Blockchain.
Final Year Project , 2020

Toll Booth Management System using RFID Tag

- Created a toll booth managing system using Arduino and RFID tag.
Third year project , 2018

Achievements

Dexday Hackathon 2021

- Text-to-image generation application .
- Developed the frontend of the app using React JS.
- Emerged 2nd in the hackathon amongst a group of 20 teams.

Hack with Infy 2019

- All-India hackathon conducted by Infosys.
- Qualified till the third round for the development and progress in the given tasks .

Certifications

- Machine Learning from Stanford University (Online)
- Blockchain Specialisation from University of Buffalo (Online)