

Vinay Kumar

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📍 @vnysheoran

A Developer Who Loves Challenges **8** Years Experience

Hi there! My name is Vinay Kumar, and I'm a web developer based in Delhi, India.

I am a seasoned full-stack developer and DevOps expert specializing in NextJS, NodeJS, MySQL, MongoDB, AWS, and Kubernetes.

Due to my expertise in multiple technologies, I am often given the title of **"All-Rounder"** by my clients. One of my previous CTOs said, **"Vinay can do what no one else can, and he is much faster."** I love challenges. If you have something that you think no one else can do, give it to me.



Engineering Manager

2022-2024

👤 Token Metrics

Automation Dev / Lead

2019-2022

CHANGE HEALTHCARE

Change Healthcare

Full Stack Developer

2019-2022

MANTRA LABS

Mantra Labs

Full Stack Developer / Project Lead

2016-2019

handysolver

HandySolver

Projects

Crypto Analytics Platform

👤 Token Metrics

Engineering Manager NextJS React Agile Crypto

Web3 NFT Supabase Snowflake NodeJS Redis

TailwindCSS

As the Engineering Manager at Token Metrics, I played a pivotal role in transforming the platform's technology infrastructure. My primary focus was on improving the speed and availability of the platform while leading a team of 15 developers.

MeraSkool - School ERP

System Design NextJS React Whatsapp Bot NLP

Payment ShadCn/ui

When MeraSkool.com needed a solution to eliminate the need for parents to download a dedicated app, I introduced and built a WhatsApp bot in just one week. This bot allows parents to receive notifications about their children's activities, ask for fees, pay fees online, access results, and more, all through WhatsApp. We made it easier for parents to stay informed and engaged without the

Achievements

Reduced application page load time from 7 seconds to 0.5 seconds

👤 Token Metrics

Token Metrics is a crypto analytics platform that displays historical data of cryptocurrencies such as Bitcoin and Ethereum, similar to a trading website. The website was initially slow, taking an average of 7 seconds to load the page and data. I redesigned and optimized the system architecture, introducing caching at different levels, including server-side and client-side caching, as well as request-level caching. As a result, the page now loads in about half a second (0.5 seconds).

Built NFT Minting page in record time


👤 Token Metrics

Token Metrics build an NFT called Astrobot Society NFT, during the launch of NFT the team handling the minting page left and they brought me in to build the whole NFT minting page from scratch within few days. I build the whole minting page with all the functionalities and security measures in record time.

Developed a robust End-to-End automation testing framework

need for additional applications, thus improving user convenience and engagement.

Astrobot Society NFT

 Token Metrics

Minting NFT Web3 Ethereum Web3.js

Smart Contract

I was tasked with developing the NFT minting page for the Astrobot Society, a critical component that allows users to mint their own NFTs from the collection. The project required swift execution, and I successfully built the minting page within a few days. Additionally, I implemented a feature that enables users to log in to the Token Metrics analytics platform using their NFTs, enhancing security and providing a seamless user experience. This integration ensures that NFT holders can easily access and utilize the benefits associated with their digital assets.

Add2Watchlist.com

NextJS React OpenAI ShadCn/ui TailwindCSS SSR

I created Add2Watchlist.com from scratch within just two weeks. This platform, built with NextJS and Tailwind CSS, offers movie recommendations based on user preferences. Leveraging OpenAI's ChatGPT, the website provides intelligent and engaging interactions to enhance user experience. As the sole developer on this project, I handled everything from initial concept and design to implementation and deployment.

Email Marketing Solution

 Contaqt

Php Yii2 Sendgrid AMQP RabbitMQ Email

I significantly contributed to the development of version 2 of the platform. My most notable achievement was enabling the platform to send millions of emails per day. Initially, the platform struggled with handling large volumes of emails. To address this, I introduced Advanced Message Queuing Protocol (AMQP) and RabbitMQ, which allowed the system to scale from sending thousands to millions of emails daily. Additionally, I developed the email flow system to track email opens, link clicks, and perform actions based on user interactions.

Cloud Infrastructure for DAO

 AstraDAO

Docker Kubernetes AWS WAF EC2 NGINX

I was responsible for creating the cloud infrastructure and ensuring the platform's stability and scalability as traffic increased. Utilizing Docker and Kubernetes, I optimized the deployment process to enhance auto-scalability and reliability. Additionally, I implemented various cloud services to maintain uptime and reduce latency, ensuring that AstraDAO could handle high volumes of transactions seamlessly.

E2E Test Automation Framework

 Mantra Labs

Cypress Testcafe JMeter Playwright Jenkins

Docker

I was responsible for creating the end-to-end automation testing platform for Change Healthcare. This involved designing and implementing a comprehensive test automation framework that

 Mantra Labs

I developed a robust automation testing framework using Cypress, JMeter, etc. The framework was able to test the application across different browsers and devices, ensuring that the application was bug-free and user-friendly.

Built and Optimized big data ETL data representation engine

 Mantra Labs

I took on an ETL representation project that was initially very slow and unresponsive due to the large volume of data being handled by the browser, which couldn't manage it effectively. I optimized the UI to load quickly by implementing a lazy loading mechanism for the remaining data. To achieve this, I developed a custom framework, significantly improving the performance and responsiveness of the application.

Created custom server for obsolete medical device protocol

During the initial phase of my career, when I had only one year of experience, I was assigned a project to retrieve data from a medical device. The device was very old, and the company that manufactured it was no longer in business, leaving no documentation available. I utilized Burp Suite to analyze the data being sent by the device and created a server based on the obsolete protocol it used. As a result, the device successfully connected to the server, allowing us to access the data stored within it.

Created AI Model to parse bank statement PDFs for bank

Cointribe was developing a fintech product designed to parse customer bank statements and generate insights for banks or financial institutions. The project was initially handled by a different team that was unable to achieve the desired results. When I joined the project, I developed an AI model capable of parsing any type of bank statement within three months.

Created Scalable infrastructure while reducing cost for one of the insurance tech provider

 Wimwisure

WIMWisure, an insurtech startup, had big data and heavy traffic, but their infrastructure was struggling to handle it, causing cloud costs to rise daily. I was brought on to reduce costs and stabilize the infrastructure. I introduced Docker and Kubernetes, improved auto scalability, defragmented the database, and performed optimizations to reduce overall costs. After these optimizations, the company experienced a 90% increase in uptime and a 40% reduction in costs.

Built architecture to send millions of email per day

 Contaqt.nl

While I contributed significantly to contaqt.nl version 2, my biggest achievement was enabling the platform to send millions of emails per day. Contaqt.nl was struggling with this issue, so I introduced AMQP and RabbitMQ to solve the problem. This allowed them to scale from thousands to millions of emails per day.

could handle the complexity and scale of their healthcare solutions. My work included developing automated test scripts, setting up continuous integration (CI) pipelines, and ensuring that the framework was robust and scalable to meet the demands of various healthcare applications.

Bank Statement Parsing for Cointribe

NodeJS Google Vision PDFs Table Detection Excel

When I joined the Cointribe project, the team had struggled to achieve the desired accuracy and efficiency in parsing bank statements. I developed an AI model capable of handling various types of bank statements, extracting relevant data from tables within these documents. This model was built and optimized within three months, significantly improving the platform's performance. The AI model I created not only parses the data but also categorizes and structures it, making it easier for financial institutions to derive actionable insights.

Wifi Enabled Smart Switch

Arduino ESP8266 Electronics PCB 3D

I was responsible for the entire development process, from design to implementation. I designed the outer plastic enclosure using Fusion 360, ensuring it was compact and aesthetically pleasing. I also developed the circuit, selecting the ESP32 board for its reliable WiFi capabilities and low power consumption. I wrote the Arduino code to manage the switch operations, and designed the web application using React and Next.js, allowing users to control the switch from their mobile devices. This comprehensive approach ensured that the smart switch was both functional and user-friendly.

Medical Device Custom Protocol Server

Burp Suite Php TCP Protocol Server

During the early phase of my career, I was assigned a challenging project to retrieve data from an old medical device. This device was outdated, and the manufacturing company was no longer in business, leaving us with no available documentation. The primary goal was to access and interpret the data being sent by this device, which used a proprietary and obsolete communication protocol.

To tackle this problem, I utilized Burp Suite to intercept and analyze the data packets being sent by the device. By carefully studying the intercepted data, I reverse-engineered the communication protocol. I then developed a custom server that could understand and respond to the device's communication protocol, enabling successful data retrieval. This involved setting up a man-in-the-middle relay to capture the traffic and using tools like MITM_RELAY to convert and relay the data between the device and our server.

and many more ...

Skills

Built online video classes solution for one of education provider

They wanted to upgrade their online classes product, which previously used Google Meet. I was brought on to create a group video call service that could scale with the increasing number of students per class while maintaining video and audio quality. The product also included virtual reality features like a built-in smart class. I successfully built the product within six months.

Built Whatsapp bot for school ERP platform

MeraSkool.com

MeraSkool.com needed a solution that would eliminate the need for parents to download any app. They wanted to remove the parent app altogether. I introduced a WhatsApp bot and built it in just one week. Now, parents receive student notifications on WhatsApp and can use it to ask for fees, pay fees online, get results, and more.

and many more...

Projects continued...

Video Call Platform for online classes with AR and VR capabilities

WebSocket WebRTC AR VR 3D

As part of my role at Skugal, I led the development of the online video call system. My work focused on enhancing the audio and video quality to ensure clear and uninterrupted communication. I also integrated AR and VR capabilities, enabling teachers to utilize 3D models during their lessons, which significantly improved the interactivity and engagement of virtual classes. By implementing these features, I helped create a more dynamic and effective online learning environment.

Infrastructure/Cloud of Insure tech



Wimwisure

Docker Kubernetes RDS MySQL Cost Optimization

I was brought on to optimize WIMWisure's existing infrastructure and improve database performance to handle big data and heavy traffic more efficiently. I introduced Docker and Kubernetes to enhance auto-scaling capabilities, ensuring the platform could handle increased load without compromising performance. Additionally, I defragmented and optimized the database, which significantly improved data retrieval speeds and reduced operational costs. These optimizations led to a 90% increase in uptime and a 40% reduction in overall costs, enabling WIMWisure to provide a more reliable and cost-effective service to its users

FRAMEWORKS & LIBRARY

NextJS

NodeJS

ExpressJS

Qwik.js

ReactJS

Angular

VueJS

Yii2

TailwindCSS

Bootstrap

SailJS

ShadCN

Ant.design

PROGRAMMING LANGUAGES

JavaScript

Java

Python

Php

HTML5

CSS3

Rust

C#

BACKEND

NodeJS

SailsJS

RabbitMQ

Redis

ExpressJS

WebSocket

WebRTC

Firebase

Supabase

OpenID Connect

DATABASE

MySQL

Firebase

Supabase

MongoDB

DynamoDB

Snowflake

DEVOPS & CLOUD

Kubernetes

Docker

AWS

Google Cloud Platform

Digital Oceans

Kafka

Jenkins

Apache2

Nginx

Cloudfront

Lambda Edge

Serverless

WAF

CDN

CloudFlair

CloudFront

EC2

Compute Engine

Github Actions

Vercel

Render

SQS

SNS

SES

TESTING & AUTOMATION

JMeter

K6

Testcafe

Cypress

OpenAPI

Functional test

Performance test

Puppeteer

Playwright

A/B Testing

MANAGEMENT

Agile Methodology

Sprint Planning

Peer Review

Team Lead

Product Management

KPIs

WEB3 & CRYPTO

NFT

Web3.js

Minting

Smart Contract

OTHER

IoT

Embedded Systems

Unity3D

Godot

Email Server

P5.js

Burp Suite

Blockchain

Mocha

Typescript

webpack