

Shashank Harikripa

Generalist Engineer | Full Stack | AI | System Design



About Me

High agency, High ownership, High impact Generalist Engineer

Started out with frontend, then mobile, cross-platform, blockchain, AI (visual) etc.. Experienced mostly working with startups, wearing almost all the hats one can wear. Worked with multiple technologies including niche ones which only a few may have heard. Owned, architected and implemented high ingress video inference engine for real time live inference for industrial applications with microservices architecture.

Mentored and lead my team to deliver high quality and scalable systems on tight timelines while communicating with key stakeholders.

Skills

Skilled Generalist Engineer, Fast Learner, likes to think in first principles, flexible, product thinker, user focussed.

Node Js	Python	JavaScript
TypeScript	REST APIs	Postgres
MongoDB	Docker	Cloud
React	ReactNative	Multithreading
Performance Optimization	System Design	Microservices
Leadership	Recruitment	

Experience



Loopr AI ~ January 2024 - Present

- Lead Implementation of LooprIQ Edge products from scratch with constant consultation from CPO, CEO & VP of Engineering
- Mentored and lead a team of 5 aligning with the product vision and helped implement the end to end product and new features.
- Implemented AI inference (defect detection) application on live video feed on an edge device with limited resources by interfacing with physical devices, using microservice architecture with minimal failure.
- Spearhead design and development efforts of LooprIQ Verify, second offering in the LooprIQ line of products for Assembly verification and validation. Designed LooprIQ verify such that most core features are extremely flexible just by updating config files, and could be deployed to any use case just by updating the config file.

- Designed On-prem licensing of LooprIQ products in offline setting so that product should only work until when it is licensed and in the configuration that it is supposed to be used.
- Lead hiring efforts for multiple engineering roles at LooprAI

Software Engineer II

Loopr AI ~ October 2022 - January 2024

- Implemented, Maintained Document validation Application using Computer Vision (OCR) and AI
- Developed LooprAI Platform Custom models feature to allow user to train any custom model using our workflows
- Improved performance of LooprAI training and model infrastructure
- Lead efforts to optimise and unclutter pre-written code, improved maintainability of codebase and reduced bugs. Also improved time taken for debugging.
- Designed and implemented shared inference by sharing resources b/w several models. Reduced Deployment time from 15-20 mins to < 1 mins, reduced cloud resource consumption.
- Implemented flow for classification models in LooprAI Platform.
- Spearheaded system architecture design for tracking and billing user actions (pay-as-you-go). Based on various factors.
- Hired junior engineers and interns and got them up to speed with the existing system. Planned and trained interns with relevant tech stack and codebase.
- Took full technical ownership of LooprIQ line of products, Design and developed them ground up.
- Designed and developed LooprIQ Inspect - Live defect detection solution for edge. Defects detected from a live feed continuously.

Software Engineer I

Juego Studio ~ January 2021 - June 2023

- Understood In depth about working of React Native, Native Bridges, working of the Framework.
- Worked on an internal POC for integrating a unity Game inside React Native and handling message passing through Native Modules.
- Came up with the standards for the message passing interface for the above mentioned POC.
- Created elegant and beautiful animations using Animated API.
- Implemented Gesture responsive UI elements from scratch.
- Explored different aspects of optimization in React Native applications, and achieved >70% optimal and faster applications.
- Explored Fundamentals of Blockchain/Web3 Development (Ethereum, Solidity) and implemented NFT standard ERC-721 and integrated it to a simple frontend using Metamask
- Implemented Multiple Smart contracts in Solidity for use cases such as NFT, Fungible tokens etc.
- Architected defi game winning distribution protocol and implemented a smart contract for Lazy Horse Race Club (LHRC) in the cronos mainnet. [cronoscan contract](#)
- Worked on IC3D Land metaverse on the Dfinity blockchain platform.

Trainee Software Engineer

Juego Studio ~ July 2020 - January 2021

- Explored in depth about ReactJS library. And delivered 3+ elegant ReactJS projects.
- Worked on the development of a highly complex Ionic x React app almost single handedly.

- Implemented chat feature with Web Socket Protocol with real time reporting of events like typing, profanity filter, and attachment sharing etc.
- Coordinated with the team to improve the efficiency of a product and delivered it with 75% higher efficiency.
- Explored React Native as a primary development track, and delivered several projects.

| Software Engineer Intern

Juego Studio ~ February 2020 - July 2020

- Explored in depth about the fundamentals of web development.
- Experienced first hand about the importance of attention to detail
- Understood the importance and in depth concepts of JavaScript
- Worked on multiple Internal as well as client projects for web using Angular, Ionic framework and delivered high performance and responsive web applications

Projects

Shared Inference System

Problem Identification, Technical Ownership, System Design, Microservices, Implementation

- Improved performance of LooprAI training and model infrastructure.
- Reduced model deployment time from 15-20 mins to less than a min.
- Cost Optimization achieved for non critical deployments.

Pay As You Go - Tracking System

Product Analysis, User Research, Configurability, System Design

- Usage tracking and billing solution design.
- Designed to track resource utilization per action, per user.
- Customizable billing and pricing service design.

On Prem - Live Inference Engine

Product Ownership, System Design, Tech Lead, Microservices, Failure tolerance, Networking

- Designed and implemented as system to handle live high throughput, image ingress with realtime inference.
- Optimized for on prem unreliable or farewelled networks of factories with high failure tolerance.

On Prem - Licensing

System Design, Tech Lead, Networking, Signed Certificates

- Designed a robust licensing system to dynamically revoke access from the customer after product license expires.
- Works without any network connectivity and without intervention from the company.