

# Niranjan Girhe

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## Work Experience

### Shell | Blockchain Engineer (via Im pactility)

Oct 2023 – Present , (Remote/ Contractor) Amsterdam, Netherlands

- Developed blockchain-based platform for digital product passports using MERN stack, Decentralized Identity (DID), Verifiable Credentials, and Solidity. Enables tamper-proof traceability across supply chains, tracking 50+ ESG attributes.
- Engineered a CPMS middleware protocol using **OCPP** and **TSOA-express** to integrate Shell's proprietary OCPP hub with external partners, connecting 500+ charging stations and reducing configuration time from a full day to just 10 minutes.
- Led frontend development of a "Coalition for Content Provenance and Authenticity (C2PA)" portal using **Next.js** and **ethers.js**, processing 1000+ media files daily and serve 10+ internal Shell stakeholders by enabling traceability of various media types

### Impactility | Full-stack Engineer

Jan 2023 – Present , Pune, Maharashtra

- Developed the ServCare platform using **React** and **React Native** to create an all-in-one solution for household appliance repair and electronic waste management, serving 30000+ households and resulting in a 400% increase in service requests
- Architected and implemented a Self-Sovereign Identity (SSI) solution using **Polygon ID SDK**, **Flutter**, **React** and **TSOA**, designed for 100,000+ daily identities with zero data breach risk, adhering to W3C specs and using Privado ID and Iden3 circuits

## Internship

### Ontario Tech University - MITACS | Research Intern

May 2022 – Aug 2022, Toronto, Canada

- Designed and developed "Threaded Paws," a serious game in **Unity** with modular level design, used by 900 students in a research study, resulting in 85% of participants reporting improved understanding of concurrency concepts and pitfalls.

### MIT Academy of Engineering | Full-stack Intern

June 2021 – Aug 2021, Pune, Maharashtra

- Developed web app using **Next.JS** to automate elective allocation for 2400+ students. Built custom algorithm from scratch for subject allocation based on CGPA and subject capacity, increasing efficiency by 95%.

### Salvation Games | Game Developer Intern

June 2020 – Aug 2020, Mumbai, Maharashtra

- Developed hyper-casual Android game using Unity and C#. Implemented in-game shop, and created 3D assets using Blender.

## Projects out of hobby

### Full-Stack E-Commerce Platform [Next.js](#) [Tailwind](#) [shadcn/ui](#) [Prisma](#) [MySQL](#) [Zustand](#) [Stripe](#) [Admin Portal](#) | [Store Frontend](#)

- Developed a comprehensive Next.js 14 e-commerce solution with multi-store admin portal and customer-facing storefront. Admin features include product/order management, analytics, and scalable APIs. Responsive frontend offers cart functionality, product filtering, and Stripe integration, utilizing admin portal APIs.

### NGAnime - Android Application [Android studio](#) [Java](#) [Kotlin](#) [Web scrapping](#) [Jsoup](#)

[Link](#)

- Developed Android app aggregating anime content from multiple platforms, featuring unified interface, social sharing, personalized watchlists, and automated episode tracking with push notifications.

## Research Projects

### Smart Traffic System to Optimize the City Traffic [Unity](#) [C#](#) [Python](#) [Git](#) [Firebase](#) [IoT](#)

[Link](#)

- Developed algorithms for smart traffic system for optimal green light timing. Tested using Unity-based real-life traffic simulator.

### Shetkari Mitra - Mobile App for Farmers [Android studio](#) [Firebase](#) [Java](#) [AWS](#) [Image Processing](#) [ML](#) [Flask](#)

[Link](#)

- Developed award-winning Android app for farmers using Java and Android Studio. Features include forums, expert connections, weather info, and ML-based soil analysis from camera images.

## Skills

**Languages:** [TypeScript](#) [Javascript](#) [C#](#) [C++](#) [HTML](#) [Python](#) [Java](#) [Kotlin](#) [Solidity](#)

**Frameworks:** [React](#) [NextJS](#) [React Native](#) [Flutter](#)

**Other:** [Amazon Web Services](#) [Azure](#) [MongoDB](#) [SQL](#) [NodeJS](#) [Unity](#) [Blender](#) [3D modeling](#)

**Certification:** AWS Certified Cloud Practitioner, Microsoft Azure AI fundamental, Microsoft Azure fundamental

## Achievements

### Winner - UNESCO-India-Africa (UIA) Hackathon [Know more](#)

2022

- Led diverse team of four to develop an innovative Android app that generates soil health reports using image processing and deep learning, earning recognition and a 300,000 INR prize presented by the **Education Minister and Vice President of India**.

### Winner - Smart India Hackathon [Know more](#)

2022

- Built a web portal for labor complaint handling. Won 100,000 INR prize in national competition with over 400,000 participants.

### Winner - MAestro 2023 Award [Know more](#)

2023

- Recognized as best outgoing student 2023; awarded 100,000 INR for academic excellence and contribution to the University.

### Finalist - Singapore India Hackathon

2023

- Developed blockchain-based (NFT) carbon footprint monitoring system for tracking and offsetting emissions.

## Education

### MIT Academy of Engineering

Bachelor of Technology - Computer Engineering - CGPA: 9.74/10

July 2023  
Pune, Maharashtra