

Ayush Ranjan (He/Him)

Portfolio

LinkedIn

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Medium



Education

Indian Institute of Technology (ISM), Dhanbad

2021 - 2025

Bachelor of Technology in Department of Mechanical Engineering (MME)

- **Relevant CSE Coursework:** Blockchain Technologies, Data structures and algorithms, Artificial Intelligence, Cryptography, Graph Algorithms, Computer Programming, Optimization Techniques, Evolutionary Computation.

Experience

Marlin Protocol

March 2025 – Present

Software Engineer (& Developer Relations)

Remote, Singapore

- Verifiable computing protocol featuring TEE & ZK-based coprocessors to delegate workloads over decentralized cloud

I'mBesideYou

May 2024 – July 2024

Software Engineer Intern | Certificate

Tokyo, Japan

- Optimized the product using CapacitorJS, fixing bugs and reducing API calls to increase response speed by 30%.
- Developed Capacitor plugin to shift the load from WebView to native environment, increasing system speed by 40%.
- Implemented CPU-optimized Microsoft's phi 3 model using ONNX Runtime for local AI inference.

Furverse

July 2023 – April 2024

Blockchain Developer | Certificate

Remote, India

- Implemented all the AI and Web3 Functionality using Ethereum Blockchain (EVM-based chains).
- Responsible for building their Frontend and Backend System using React, MongoDB, Firebase, Node.js.

Open-Source Contributions

Randomu | An Open-Sourced project of Protocol Labs

- Fixed docker container startup errors for Onlyswaps (DeFi protocol for cross-chain swaps): [Link to PR](#).
- Built Dutch-auction based multi-chain swap solver for Onlyswaps rewarding the fastest routes: [Link to Repo](#).

Freelance Work

DevsGiant: Designed and built ETH smart contracts and integrated them with the Next.js frontend for a Web3 gaming product.

Projects

StarknetAVS | GitHub, Demo / Pitch Doc | [ETH India'24 Winner](#) : Winner of Starkware top project at ETH India'24.

- Fetches transactions on Starknet blockchain and flags it if doesn't follow compliance rules using trained AI models.
- Built with EigenLayer's AVS for verifying all AI results, and operators can earn from re-staking.

Private-Gnome | GitHub, Demo, Pitch Doc | [ETH Belgrade](#) : 1st Prize in IExec's top TEE IApp.

- Predicts health risks from DNA, powered by a custom-trained ML model running securely in IExec's TEE.

StarkPAI | GitHub, Demo, Pitch Doc | [Starknet Hacker House Winner](#) : I presented this project at IBW'24 stage as winners.

- An AI-powered wallet on Starknet Blockchain built from scratch for better and smarter user experience.

Crypto-UPI | GitHub, Demo, Pitch Doc | [Starknet Winter Hackathon Winner](#) : Best Project in DeFi Track.

- A decentralized intent solver marketplace, where local solvers can fulfill payment intents and receive crypto tokens.

ZK-Science | GitHub, Demo, Pitch Doc | Zero-Knowledge, ZK Verify, EDU Chain, DeSci

- Prove legitimacy of your scientific survey/research volunteers without revealing their personal data.

In-Device Offline Generative AI | GitHub, Demo | React.js, Capacitor.js, Transformers.js, LLM/SLM, ONNX-Runtime, Android

- **Motivation:** To build MVP of an AI chatbot for confidential use cases, like military, medical industries, tech firms etc.
- Built multilingual Llamini-Flan, Flan-Alpaca, Apple-OpenELM, Bart models to work fully offline In-browser / Android App.

Achievements

Uniswap Hook Incubator Alumni | Won ETH India'24 | Won ETH Belgrade'25 | Won Starknet Hacker House | Won Starknet Winter Hackathon | Won Loops Hacker House | Won Mode DeFi AI Hack | Starknet Top Builder NFT | Starknet Basecamp Top Graduates | Founding Member: Web3 Club of IIT ISM | Leetcode, GFG | **Kartavya NGO:** Mentor of underprivileged Kids