

Reeshav Acharya

Software Engineer | Web3 | Blockchain

As a blockchain-focused software engineer, I am driven by innovation and problem-solving, continuously seeking novel solutions while prioritizing learning and growth.

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reeshavacharya

SKILLS

Programming Language : Python, Haskell, C, C++, C#, Java, JavaScript, TypeScript

Web Development : Next.JS, React, Node.JS, .NET, HTML/CSS

Blockchain : Cardano, Ethereum, Smart-Contracts, Decentralized Finance, DApps, Blockchain Governance

Others : Linux, Git, Docker, Jupyter Notebook

EXPERIENCE

Software Engineer

 Sireto Technology  2023 - Present  Delft, Netherlands (Remote)

Keywords: Blockchain, Cryptography, Cardano, Haskell, Plutus, Smart-Contracts, FastAPI, Next.JS, Node.JS

Key Projects

KuberIDE

 kuberide.com

- Assisted in developing a web-based IDE for Plutus development and building transactions.
- Implemented ED25519 signature verification, and execution cost and fee optimization for transactions.

Cardano Priority Wallet

 chromewebstore.google.com/cardano-priority-wallet

- Developed a proxy for Cardano wallet extensions.
- Enhanced transaction optimization to reduce fees and accelerate minting processes.
- Leveraged Maximal Extractable Value (MEV) principles.

Multi-Sig

 multisig.cardanoapi.io

- Developed a multi-signature platform on Cardano, utilizing Plutus for smart contract implementation.
- Implemented both on-chain and off-chain signature verification and fund withdrawal.
- Developed features for NFT minting, and data storage and verification on the blockchain.
- Implemented Bitcoin's SECP256K1 Elliptic Curve's Schnorr Signature protocols in Cardano for public key and signature aggregation.

Kuber-Client

 npmjs.com/kuber-client

- JavaScript library for Cardano transaction building and submission.

Cardano Node JS

 npmjs.com/libcardano

- Developed a JavaScript library that intercepts connections between two Cardano nodes, queries blocks, and decodes transactions from CBOR to readable JSON.

Decentralized Exchange Match-Maker

 github.com/minswap-dex

- Created a match-maker for exchanging tokens and NFTs within a liquidity pool, utilized by a decentralized exchange.
- Generated balanced transactions by calculating the amounts of offered and ordered tokens.

Auditing and Testing

- Experienced in writing tests and evaluating various attack vectors to identify potential security loopholes in smart contracts and blockchain protocols.
- Collaborated with [Emurgo](#) to audit smart contracts for token price discovery protocol.
- Worked closely with [Intersect MBO](#) to test Cardano Improvement Proposals for protocol upgrade.

Blockchain Internship

 Sireto Technology  2023  Delft, Netherlands (Remote)

Keywords: Blockchain, Cardano, Haskell, Plutus, Smart-Contracts

Functional Programming

- Learned functional programming
- Gained hands-on experience with Haskell and the Cabal framework.

Payment Splitting Smart Contract

- Implemented the Plutus library to write a smart contract
- Tested On-Chin

NFT Marketplace

- Wrote Smart Contracts for a NFT marketplace
- Created Rest APIs for buying and selling assets

EDUCATION

B.Sc. Computer Science and Information Technology

🏛️ National College of Computer Studies, Tribhuvan University 📅 2018 – 2023 📍 Kathmandu, Nepal

- **Percentage:** 79.72
- **Key Courses** Data Structure and Algorithms, Artificial Intelligence, Statistics I & II, Object Oriented Programming, Cryptography, Theory of Computation, Database Management System

Academic Projects

Transaction Management Over Blockchain

🔗 [github/transaction-management-over-blockchain](https://github.com/transaction-management-over-blockchain)

Keywords: Blockchain, Python, Flask, SECP256k1, ECDSA, Proof of work

- Emulated Proof of Work using python's bitcoin and pycoin package.
- Operated nodes on various ports and developed features to add transactions, mine blocks, and view/track transactions.

E-Commerce Web Application

🔗 [github/karnali](https://github.com/karnali)

Keywords: Laravel, Web Development, E-Commerce

- Multi-Vendor E-commerce Web Application.
- Developed using PHP Laravel framework.

PERSONAL INTERESTS

Algorithmic Problem Solving

🔗 [Leetcode](https://leetcode.com/)

- 100+ problems solved on LeetCode
- Enjoy tackling complex algorithmic challenges to enhance my problem-solving skills.

Quantitative Finance

🔗 github.com/FinMathematics

- Developed a keen interest in quantitative finance
- Experience in executing options trading strategies like iron butterfly, iron condor, covered calls etc.
- Currently studying basics of Quantitative Finance from online resources like [FinMathematics](#) and [QuantPy](#)

Chess

🔗 [LiChess](https://lichess.org/)

- Personal best online chess rating: 1800+
- Passionate about chess with a deep appreciation for the strategic and tactical aspects of the game.

Digital Art

🔗 [ArtStation](https://www.artstation.com/)

- Concept Art, Environment Design, Digital Illustration
- Passionate about creating concept art and environment designs through digital mediums, showcasing creativity and artistic skills.

SUMMARY

With a strong passion for quantitative finance and blockchain, I am eager to leverage my skills and experience to contribute to cutting-edge research and development in these fields. My background in options trading and complex strategies, coupled with hands-on experience in blockchain technology and smart contracts, has provided me with a solid foundation in analytical and problem-solving skills.

I am particularly interested in exploring the intersection of quantitative finance and blockchain technology and am dedicated to furthering my expertise through research opportunities. I am excited to bring my enthusiasm, technical proficiency, and innovative mindset to a master's program where I can collaborate on impactful projects and drive forward advancements in these dynamic areas.