

# MUHAMMAD AMAN SIDDIQUI

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## PROFESSIONAL SUMMARY

Full-stack developer with 2+ years of experience across Web2 and Web3 ecosystems. Expertise in building scalable applications using React Native, Next.js, Node.js, and Solidity. Proven track record in blockchain infrastructure (Polygon CDK, ZK-Rollups), DeFi protocols (stablecoins, AMMs, cross-chain bridges), and consumer-facing applications. Strong foundation in smart contract development, gas optimization, and oracle integration (Chainlink CCIP, VRF, Data Feeds).

## TECHNICAL SKILLS

**Languages:** Solidity, JavaScript, TypeScript, Java, C/C++, SQL, HTML/CSS

**Web3 & Blockchain:** Solidity, EVM Architecture, Foundry, Hardhat, Polygon CDK, ZK-Rollups, Chainlink (CCIP, VRF, Data Feeds, Automation), OpenZeppelin, Ethers.js, Gas Optimization

**Frontend:** React.js, Next.js, React Native, Expo, TypeScript

**Backend:** Node.js, Express.js, Spring Boot, Prisma

**Databases:** MongoDB, MySQL, Supabase, Redis

**DevOps & Tools:** Docker, Git, GitHub, Jenkins, Grafana, Splunk, OpenLens, Postman

**DeFi Concepts:** AMMs (Uniswap V2), Overcollateralized Stablecoins, Rebase Tokens, Cross-chain Bridges, Liquidation Engines

## PROFESSIONAL EXPERIENCE

**Blockchain Developer** | ChicMic Studios

*Mohali, Punjab, India | Jan 2026 – Present*

- **Deployed a custom Layer 2 rollup chain** on Sepolia testnet (chain ID: 123456789) using Polygon's kurtosis-cdk framework as part of blockchain infrastructure research, configuring both zk-rollup and sovereign pessimistic proof modes
- **Resolved complex L2 infrastructure challenges** including SP1 verifier version mismatches, aggregator WebSocket connectivity issues, and EVM opcode compatibility (MCOPY → Paris), demonstrating deep understanding of rollup architecture
- **Engineered an industry-standard payment gateway smart contract** for a real estate web project deployed on Polygon network, supporting USDT and WETH payments with multi-signature security and automated settlement
- **Built a production-grade AMM DEX (Coreswap)** implementing Uniswap V2 core mechanics from scratch, structured into modular Factory, Pair, and Router contracts with accurate LP token minting/burning and constant product formula ( $x * y = k$ )
- Set up local CPU-based SP1 prover for zero-knowledge proof generation and validation, gaining hands-on experience with ZK cryptography in production rollup environments

**Software Development Engineer Intern** | Heizen (formerly OpenGig)

*San Francisco, CA (Remote) | Jul 2025 – Sep 2025*

- Delivered an interactive **3D News Globe** in **Next.js** from client specifications to production deployment
- Simulated **500 AI-driven users** in a **React Native** stock trading app, creating an authentic active community experience
- Built interactive **stock charts with multiple timeframes (1D to 5Y)** for trading platform
- Optimized backend delivery with **Redis caching**, **Dockerized services**, and AI-assisted prototyping

## React Native Developer (Freelance) | Glossify

Stockholm, Sweden (Remote) | Aug 2024 – Oct 2024

- Built **20+ screens** for a language learning app, integrating Firebase push notifications using **expo-notifications** to boost user engagement
- Developed **AI text-to-speech** and translation features using **OpenAI API**, projected to increase engagement by **25%**
- Architected personalized **YouTube content feed**, increasing content discoverability and seamless learning

## Junior Software Engineer | Optum - United Health Group

Gurugram, India | Sep 2022 – Aug 2023

- Automated manual error reconciliation with **Spring Boot microservice**, cutting manual effort by **95%**
- Resolved security vulnerabilities in **15+ applications**, enhancing production security for **millions of users**
- Executed manual ticket remediation using **ServiceNow**, resolving **6+ tickets** weekly and monitoring system performance, contributing to **99.9%+ uptime**

## WEB3 BLOCKCHAIN PROJECTS

### Cross-Chain Rebase Token Protocol

Solidity, Foundry, Chainlink CCIP, OpenZeppelin | [github.com/Aman-Sidd/ccip-rebase-token](https://github.com/Aman-Sidd/ccip-rebase-token)

- Built a **cross-chain rebase token** where balances **dynamically increase over time**, demonstrating **complex state-tracking**
- Integrated **Chainlink CCIP** to bridge tokens seamlessly between **Sepolia and ZKsync** networks
- Implemented **custom Token Pools** to transmit user-specific interest rates across chains via `sourcePoolData`, ensuring **strict 18-decimal precision**

### Algorithmic Decentralized Stablecoin (DSC)

Solidity, Foundry, Chainlink Data Feeds, Next.js | [decentralized-stablecoin-frontend.vercel.app](https://decentralized-stablecoin-frontend.vercel.app)

- Developed an **overcollateralized stablecoin pegged to USD**, inspired by **MakerDAO's DAI** architecture
- Implemented core **DeFi mechanics** including minting, burning, collateral depositing/withdrawing with **health factor monitoring**
- Built a **robust liquidation engine** with **10% liquidation bonus** for liquidators, integrated with **Chainlink Price Feeds** for real-time USD valuations

### TrustFlow: Decentralized Milestone Escrow

Solidity, Hardhat, Ethers.js, SafeERC20 | [github.com/Aman-Sidd/milestone-escrow-fullstack](https://github.com/Aman-Sidd/milestone-escrow-fullstack)

- Created a **trustless payment gateway** for freelancers using **milestone-based fund release** architecture
- Supported **multi-asset funding (ETH and ERC-20s)** with **SafeERC20 security**, including **dispute resolution** with arbiter-based fund freezing

### Provably Fair Automation Lottery

Solidity, Foundry, Chainlink VRF, Chainlink Automation | [github.com/Aman-Sidd/lottery-system-foundry](https://github.com/Aman-Sidd/lottery-system-foundry)

- Built a **verifiable on-chain lottery system** with **Chainlink VRF** for **cryptographically secure random winner selection**
- Utilized **Chainlink Automation** to **autonomously trigger raffle draws** when conditions are met

### Custom ICO Presale & Marketplace

Solidity, Hardhat, Next.js | [ico-marketplace-ebon.vercel.app](https://ico-marketplace-ebon.vercel.app)

- Built an **ICO platform** allowing developers to **permissionlessly launch custom Initial Coin Offerings** at fixed ETH prices
- Engineered the **ICOMarketplaceCore contract** for **secure token purchases and creator withdrawals**, with full-stack Next.js frontend

## WEB2 PROJECTS

### TAlman - AI Voice Interviewer

*Next.js, TypeScript, Supabase, VAPI | Mar 2025 – Apr 2025*

- Engineered **voice-based AI interviewer** using **VAPI and LLaMA** for real-time candidate evaluation
- Built recruiter dashboard with **email integration** for interview customization and secure sharing
- Reduced interview time by **30%** and increased daily capacity by **40%** via automation

### Printease - Universal Print Ordering App

*React Native, Expo, MySQL, Node.js, Prisma | Feb 2024 – Apr 2024*

- Co-developed universal app for student print ordering and vendor management using **React Native**
- Integrated **Razorpay payment gateway** for secure transactions and **QR verification** for order pickup
- Achieved **80% reduction** in student wait times by digitizing print workflow

## EDUCATION

### B.Tech in Computer Science & Engineering | Chandigarh Group of Colleges

*Mohali, India | Jul 2023 – Jun 2026 | CGPA: 9.1/10.0*

### Diploma in Computer Science & Engineering | Integral University

*Lucknow, India | Jul 2019 – Jun 2022 | 95%*

## ACHIEVEMENTS

- **AIR 3884** among **140,000+ participants** in CodeKaze'23 by Naukri.com
- **1st Place** in Decode O Bytes at CGC Landran
- **1st Place** in Crack The Code at Integral University
- **Gold Medalist** in Diploma Computer Science & Engineering