Karan Parwani

Senior Software Engineer, Senior Backend Engineer, Junior Blockchain Engineer, FinTech Developer, Full Stack Engineer

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PROFESSIONAL SUMMARY

Experienced senior software engineer with 4+ years in scalable backend development for FinTech, Banking, and HR Tech Products. Skilled in Python and Node.js for creating secure, high-performance APIs and microservices. Blockchain enthusiast with growing expertise in Ethereum smart contracts, actively learning Solidity, and experienced in integrating blockchain functionalities like cryptocurrency transactions and accepting them within the system, along with dynamic gas price calculations into backend systems. Strong Cloud/DevOps expertise: AWS (EC2, SES, S3), Docker, microservices architecture, RESTful API design. Familiar with KYC/AML integration for compliance and in-banking APIs in financial projects. Proven team leader: mentored engineers, led code reviews, and managed project delivery in agile environments. Passionate about innovative technologies and delivering solutions in fast-paced settings.

SKILLS

Programming Expertise: Python, JavaScript, Node.js, Solidity, Web3.

Technical Skills: API Development, Database Management & Programming, Blockchain Integration, Cloud Deployment, Smart Contract Testing, RESTful Services, Performance Optimization, Version Control (Git, GitLab), Software Development Life Cycle (SDLC), Continuous Integration (CI), Web Applications, RDBMS.

Technological Expertise: Docker, Docker Compose, AWS Services, MongoDB, PostgreSQL, MySQL, NoSQL, Webhooks, RabbitMQ, Redis.

Tools & Web Frameworks: AWS (EC2, S3), Fastapi, Flask, Express.js, React.js, Django, Flyway Migrations, Nginx, PM2, Git (Version Control), Auth0 by Okta, Sumsub Integration, Safe Global.

Operational: Team Leadership, Technical Documentation, Agile Methodologies, API Security, Solution Architecture, Entry-Level DevOps Engineer.

CORE SKILLS

Programming Expertise: Proficient in Python, JavaScript, Node.js, and Web3, Object Oriented Programming (OOP) with beginner-level experience in Solidity and related frameworks for developing robust software solutions.

API Development: Experienced in designing, developing, and optimizing RESTful APIs, GraphQL APIs, and microservices for seamless integration and scalability.

Microservices Architecture: Skilled in designing, implementing, and maintaining microservices-based systems with a focus on scalability, resilience, and real-time communication.

Blockchain Development: Gaining hands-on experience in smart contract development, exploring decentralized applications (DApps), and familiarizing with blockchain infrastructure concepts.

Team management: Mentoring and overseeing a team of two backend engineers, focusing on code reviews and continuous integration.

Database Management: Skilled in designing and managing relational (PostgreSQL, SQLite, MySQL) and NoSQL (MongoDB) databases with a focus on performance and scalability.

Cloud and DevOps: Proficient in cloud deployment (AWS, EC2), containerization (Docker).

FinTech Solutions: Expertise in banking APIs, KYC/AML integrations, payment platforms, and identity and access management (IAM).

Problem-Solving: Strong analytical skills with a focus on resolving complex technical issues and optimizing system performance.

EXPERIENCE

Universal Assets Bank   *Dubai, United Arab Emirates*
Software Engineer   Apr '23 – Present
Website - universalassets.com

- Spearheaded the design and development of a scalable digital banking backend system using Python and Node.js, comprising 7 modules with PostgreSQL for transactional data and MongoDB for unstructured data like Crypto.
- Deployed 8 microservices with a unified API endpoint through AWS API Gateway, ensuring secure and seamless communication. Leveraged RabbitMQ for inter-service communication, webhooks for real-time frontend notifications, and Grafana with Loguru for monitoring.
- Implemented Access Control Lists (ACLs) at the backend to enforce a Decision Matrix, ensuring precise authorization and control over user actions.
- Developed secure APIs with JWT authentication and a rules-based encryption engine for encrypted payload processing, ensuring efficient and secure frontend/backend communication using cryptographic methods.
- Integrated Ethereum smart contracts via Python Web3, enabling blockchain functionalities such as cryptocurrency transactions and dynamic gas price calculations using CoinGecko APIs.
- Led and mentored a team of two developers, conducting code reviews, aligning technical solutions with strategic goals, and actively expanding expertise in blockchain technologies.
- Enhanced application performance by implementing caching mechanisms and optimizing database queries for frequently accessed data, significantly reducing latency and improving user experience.
- Successfully launched and deployed version 1 of the product, enabling seamless onboarding for both corporate and individual customers.

Intellica LLP   *Ahmedabad, India*
Associate Software Engineer   Aug '21 – Feb'23
Website - rootle.ai

- Rootle is an AI-powered application designed to help businesses automate candidate calls based on their CV and ATS data.
- Developed APIs using FastAPI and Flask with JWT authentication, adhering to Object-Oriented Programming (OOP) principles where applicable, and implementing background task processing.
- Optimized database performance by creating and testing RAW SQL and PL/SQL queries, improving system efficiency by 50%.
- Integrated AWS services to enhance functionality, including SES for email notifications, S3 for fast data retrieval, and Twilio for automated calling services.
- Collaborated with a team of 9 developers (frontend and backend engineers) to accelerate project development timelines.
- Participated in code reviews with senior developers, incorporating suggestions and optimization techniques to improve the scalability and maintainability of the codebase for long-term use.

Vovancev PVT LMT   *Ahmedabad, India*
Software Engineer Trainee   Nov '20 – Mar'21
- Actively learning programming languages like Python, JavaScript, Web Scraping, and actively learning HubSpot CMS to enhance coding abilities and adapt to new tools and technologies.
- Skilled in teamwork and participating in code reviews to maintain high code quality, identify areas for improvement, and stay updated with emerging technologies.

EDUCATION

Gujarat Technological University   *Ahmedabad, India*
Master's in Computer Application   2018 – 2020
- Focused on advanced software development, database management, and system design principles. Completed multiple projects, including a capstone project on Django E-commerce.

Gujarat University   *Ahmedabad, India*
Bachelor's in Computer Application   2015 – 2018
- Gained foundational knowledge in programming, data structures, and web development. Actively participated in tech workshops and coding challenges.

PROJECTS

Generate Wallet Address – GitHub
- Developed and deployed a smart contract on the Ethereum Sepolia testnet to dynamically generate wallet addresses, leveraging tools like Infura, Web3.py, and Hardhat.
- Integrated Web3.py for seamless blockchain interaction, utilizing event logs for data extraction while addressing challenges such as HexBytes slicing, checksum validation, and gas estimation.
- Gained hands-on experience with Ganache, ensuring reliable smart contract functionality through debugging and compliance with Ethereum standards

Monitor Blockchain Transactions – GitHub
- Utilized Web3 technology to scan the Sepolia Testnet for incoming and outgoing transactions associated with a specified wallet address, saving detected transactions into a database.
- Efficiently recorded and managed transaction data for seamless storage and retrieval.
- Developed an API to enable dynamic control and management of the transaction indexer.

Blockchain-Based Voting System – GitHub
- Developing a decentralized voting application leveraging blockchain technology to ensure transparency, security, and immutability in the voting process.
- Utilizing **React.js** for a dynamic user interface, **Node.js** for the backend, and **Solidity** for writing smart contracts deployed on the **Sepolia testnet** or **Hardhat**.
- Incorporating Web3.js for seamless interaction between the frontend and the blockchain, enabling real-time updates and user authentication through wallets like MetaMask.

CERTIFICATIONS
- Meta Backend Developer Professional Certificate *(link)*
- Achievements in HackerRank *(link)*