# **David Parseen Maitoyo**

Senior Software Engineer | Building High-Performance & Secure Applications

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# **Professional Summary**

Senior Software Engineer with over 6 years of progressive experience delivering robust, scalable solutions in dynamic tech environments. Adept in full-stack development and skilled in incrementally refining mature infrastructures through strategic enhancements in microservices, CI/CD automation, and secure payment processing. A collaborative leader committed to continuous learning, technical excellence, and measurable business impact.

### Skills

### **Technical Skills**

- Programming Languages: TypeScript, JavaScript, Python, Rust, Kotlin, Ruby
- Frameworks & Libraries: React, Next.js, Django, Ruby on Rails, React Native
- Databases: PostgreSQL, MySQL, Cloudflare D1, MongoDB, DynamoDB
- DevOps: CI/CD (CircleCI, Jenkins), Docker, Kubernetes, Helm, Terraform, AWS, GCP, Firebase
- Blockchain: Solidity, Solana Development, Blockchain Auditing/Security Reviews
- AI/ML: Generative AI, Machine Learning
- Other: RESTful API Design, Microservices, Payment Processing Integration, Git

#### Soft Skills

Problem Solving, Critical Thinking, Adaptability, Team Leadership, Communication, Mentorship, Continuous Learning

### **Professional Experience**

# **Software Engineer**

Andela - Remote (New York, United States)

October 2017 - February 2020

# • Full-Stack Development:

- Designed and maintained scalable web and mobile applications using TypeScript, React, React Native, and Python/Django, improving application response times by 20%.
- Contributed to the initial design and iterative rollout of a microservices architecture that laid the groundwork for future scalability improvements.

# • DevOps & Database Optimization:

- Developed and refined CI/CD pipelines that reduced deployment errors by 25% and cut release cycles by 15%.
- Optimized backend queries and fine-tuned PostgreSQL/MySQL configurations, achieving a 20% reduction in data retrieval times.

# • Team Collaboration & Mentorship:

- Mentored junior developers and led agile sprints, resulting in a 15% increase in team productivity.
- Authored comprehensive documentation and best practices that enhanced cross-team knowledge sharing.

### **Software Engineering Lead**

Proto Energy - Hybrid (Nairobi County, Kenya)

February 2020 - August 2021

### • System Modernization:

- Collaborated on transitioning legacy monolithic systems to a cloud-based, microservices architecture using Python/Django and React.
- Integrated secure payment processing modules that reduced transactional errors by 30% and streamlined revenue tracking.

#### • Operational Efficiency:

- Implemented database optimizations on PostgreSQL and SQLServer, enhancing data retrieval speeds by 25%.
- Enhanced CI/CD workflows with automated testing scripts, reducing deployment cycle times by 30% while maintaining 99.9% uptime.

# • Leadership & Quality Assurance:

 Conducted regular code reviews and hosted technical workshops, improving team adherence to best practices and increasing overall code quality by 15%.

# **Senior Software Engineer (Contract)**

**Syndicate** – Remote (Palo Alto, California, United States)

August 2021 - October 2022

# • Advancing a Fully Web3 Platform:

Played a pivotal role in evolving a fully decentralized, Web3-based platform by collaborating on the design of a blockchain-native architecture.

### • Smart Contract & Payment Module Optimization:

 Engineered and optimized smart contract integrations and decentralized onboarding solutions that reduced confirmation times by 35% while ensuring robust security during onboarding.

#### Enhanced Decentralized Analytics:

- Refined token-driven analytics dashboards and decentralized governance protocols, contributing to a 40% increase in user engagement and actionable insights.
- Streamlined Blockchain Deployments:
- Assisted in optimizing CI/CD workflows for blockchain deployments, ensuring seamless integration of protocol updates without network disruption.

# • Web3 Mentorship:

 Provided technical mentorship on Web3 standards and best practices, improving code quality and protocol compliance by 20% across the team.

# **Senior Software Engineer**

**Branch Microfinance International** – Remote (Nairobi County, Kenya)

October 2022 - June 2024

# • Strategic Technology Adoption:

- Joined a mature engineering team to extend backend capabilities by extending Ruby on Rails for new feature development and Kotlin to enhance Android mobile integrations.
- o Incrementally refined existing microservices, achieving a 40% reduction in feature deployment times and a 30% improvement in API response performance.

#### Database & CI/CD Enhancements:

- Optimized PostgreSQL query performance and refined database management practices to support high-volume payment processing systems.
- Collaborated with DevOps teams to fine-tune CI/CD pipelines, significantly reducing system downtime.

# Cross-Functional Collaboration:

- Participated in strategic technical planning to align enhancements with business objectives, resulting in a 35% boost in operational performance.
- Led technical discussions that promoted the adoption of new best practices across teams.

## **Senior Software Engineer (Freelance)**

**Turing** – Remote (Palo Alto, California, United States)

June 2024 - Present

### • Advanced Integration & Global Collaboration:

- Lead projects to integrate cutting-edge AI/ML modules into established systems, enhancing real-time decision-making accuracy by 20% without disrupting core functionalities.
- Further optimized CI/CD pipelines in collaboration with dedicated DevOps specialists, reducing deployment cycle times by 35%.

#### Continuous System Enhancements:

- Delivered targeted, incremental improvements across system components, preserving a robust and scalable infrastructure while driving measurable performance gains.
- Facilitated technical workshops and knowledge-sharing sessions that elevated team practices and fostered innovation.

# • Strategic Technical Guidance:

Provided ongoing technical leadership and strategic insights, ensuring that new integrations align with evolving business goals and industry standards.

#### Education

### **Bachelor of Science in Mathematics**

University of Nairobi – Nairobi, Kenya January 2014 – September 2019

#### Certifications

 Blockchain Fundamentals Certification – Chainlink Labs Issued November 2024 (Expires November 2025)

 Introduction to Quantum Cryptography – LinkedIn Learning Issued February 2020

# **Professional Development & Interests**

# • Professional Development:

- Regularly attend technical workshops, webinars, and hackathons to stay updated with emerging trends in AI, blockchain, and mobile innovation.
- Actively participate in open-source projects and contribute to technology blogs, sharing insights and learning from a vibrant global community.
- Host internal technical workshops and mentoring sessions to nurture emerging talent and promote best practices across teams.

#### Interests:

- Passionate about exploring new frontiers in decentralized technologies and their potential to reshape digital interactions.
- Enjoy collaborating with diverse tech communities and networking with like-minded professionals.
- Committed to lifelong learning and continuously seeking innovative solutions to complex challenges.

### **Chronological Career Growth Highlights**

- Andela (2017–2020): Established a robust full-stack foundation, initiated early microservices and DevOps practices, and optimized critical backend processes.
- **Proto Energy (2020–2021):** Modernized legacy systems with cloud-based microservices, integrated secure payment processing, and significantly enhanced operational efficiency.
- Syndicate (2021–2022): Advanced a fully decentralized Web3 platform by implementing blockchain-native microservices, optimizing smart contract integrations, and refining decentralized analytics.
- **Branch International (2022–2024):** Expanded technical expertise with Ruby on Rails and Kotlin to enhance backend and mobile functionalities, driving substantial performance improvements.
- Turing (2024–Present): Leveraging advanced AI/ML integrations and refined DevOps practices to deliver continuous, global-scale system enhancements and measurable business impact.