

# Petru Lucian Moisa

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## Skills

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Languages & Frameworks: JavaScript, Typescript

Frameworks & Libraries: Node.js, Express, Next, React

Others: Docker, AWS, SQL, MongoDB, Zod, Jest, Git, Redis, NPM

## Professional Experience

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**Contractor - Node.js Backend Developer**

**Mar 2021 - Present**

- Implemented message processing pipeline with fallback and validation for communication platform with a history of 650k+ messages.
- Designed and maintained RESTful APIs with validation, rate limiting, and fault tolerance.
- Optimized API gateway service for all incoming traffic at >3k req/s with 99,99%+ availability.
- Designed scalable broadcast mechanisms for subscription-wide messages and event logging.
- Implemented rate-limit services and bucket aware tracking for endpoints reducing API failures by more than 30%.
- Architected pooling and reworked caching strategies, increasing availability and reducing load by 60%.
- Collaborated with multiple teams to define strict codebase practices and ensure OOP focused development.

## Projects

**Relay Network - Typescript, MongoDB**

**Oct 2024 — Present**

- Engineered webhook based system for real-time message propagation, managing a network of over 500k users.
- Implemented lifecycle management with authority-based permission control for secure, structured administration.
- Optimized REST API service for high throughput and concurrency, handling over 150k daily messages.
- Designed horizontal scalable architecture with token load-balancing and backpressure system, mitigating traffic outbursts.

**Race Tracker – Node.js, Express, PostgreSQL**

**Sep 2025 — Nov 2025**

- Designed event-driven system with real-time metrics for statistical analysis and on-track driver management.
- Implemented precise per-sector and lap time detection, ensuring down-to-millisecond accuracy.
- Optimized SQL indexing and query strategy for transactions and CRUD operations within retry-after service.
- Developed race, driver, and kart speed live control via operator management console.

**Task Scheduler – Typescript, Lint**

**Jan 2026 — May 2026**

- Architected heap queue for deterministic unique sorting based on tasks ID and priority.
- Implemented high-concurrency with strict execution control for per-software customization.
- Implemented dependency support allowing deferral until parent completion.
- Integrated deduplication and task collapsing logic, reducing up to 90% of tasks in high-frequency scenarios.

**Image Converter – Next.js, React**

**Aug 2025 – Dec 2025**

- Implemented multiple files conversion with support up to 200Mb via stream pipelines.
- Designed extensible architecture for new format configurations with minimal overhead.
- Integrated external tooling for media post-processing, resizing, and cleanup.