

Job Description - Product Engineer (Backend) 2025

Rakamin is hiring a Product Engineer (Backend) to work on Rakamin. We're looking for dedicated engineers who write code they're proud of and who are eager to keep scaling and improving complex systems, including those powered by AI.

About the Job

You'll be building new product features alongside a frontend engineer and product manager using our Agile methodology, as well as addressing issues to ensure our apps are robust and our codebase is clean. As a Product Engineer, you'll write clean, efficient code to enhance our product's codebase in meaningful ways.

In addition to classic backend work, this role also touches on building AI-powered systems, where you'll design and orchestrate how large language models (LLMs) integrate into Rakamin's product ecosystem.

Here are some real examples of the work in our team:

- Collaborating with frontend engineers and 3rd parties to build robust backend solutions that support highly configurable platforms and cross-platform integration.
- Developing and maintaining server-side logic for central database, ensuring high performance throughput and response time.
- Designing and fine-tuning AI prompts that align with product requirements and user contexts.
- Building LLM chaining flows, where the output from one model is reliably passed to and enriched by another.
- Implementing Retrieval-Augmented Generation (RAG) by embedding and retrieving context from vector databases, then injecting it into AI prompts to improve accuracy and relevance.
- Handling long-running AI processes gracefully — including job orchestration, async background workers, and retry mechanisms.
- Designing safeguards for uncontrolled scenarios: managing failure cases from 3rd party APIs and mitigating the randomness/nondeterminism of LLM outputs.
- Leveraging AI tools and workflows to increase team productivity (e.g., AI-assisted code generation, automated QA, internal bots).
- Writing reusable, testable, and efficient code to improve the functionality of our existing systems.
- Strengthening our test coverage with RSpec to build robust and reliable web apps.
- Conducting full product lifecycles, from idea generation to design, implementation, testing, deployment, and maintenance.
- Providing input on technical feasibility, timelines, and potential product trade-offs, working with business divisions.
- Actively engaging with users and stakeholders to understand their needs and translate them into backend and AI-driven improvements.

About You

We're looking for candidates with a strong track record of working on backend technologies of web apps, ideally with exposure to AI/LLM development or a strong desire to learn.

You should have experience with backend languages and frameworks (Node.js, Django, Rails), as well as modern backend tooling and technologies such as:

- Database management (MySQL, PostgreSQL, MongoDB)
- RESTful APIs
- Security compliance
- Cloud technologies (AWS, Google Cloud, Azure)
- Server-side languages (Java, Python, Ruby, or JavaScript)
- Understanding of frontend technologies
- User authentication and authorization between multiple systems, servers, and environments
- Scalable application design principles
- Creating database schemas that represent and support business processes
- Implementing automated testing platforms and unit tests
- Familiarity with LLM APIs, embeddings, vector databases and prompt design best practices

We're not big on credentials, so a Computer Science degree or graduating from a prestigious university isn't something we emphasize. We care about what you can do and how you do it, not how you got here.