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CASE STUDY: PAYFORED

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A college cost analysis and loan repayment planning platform

Partner information:

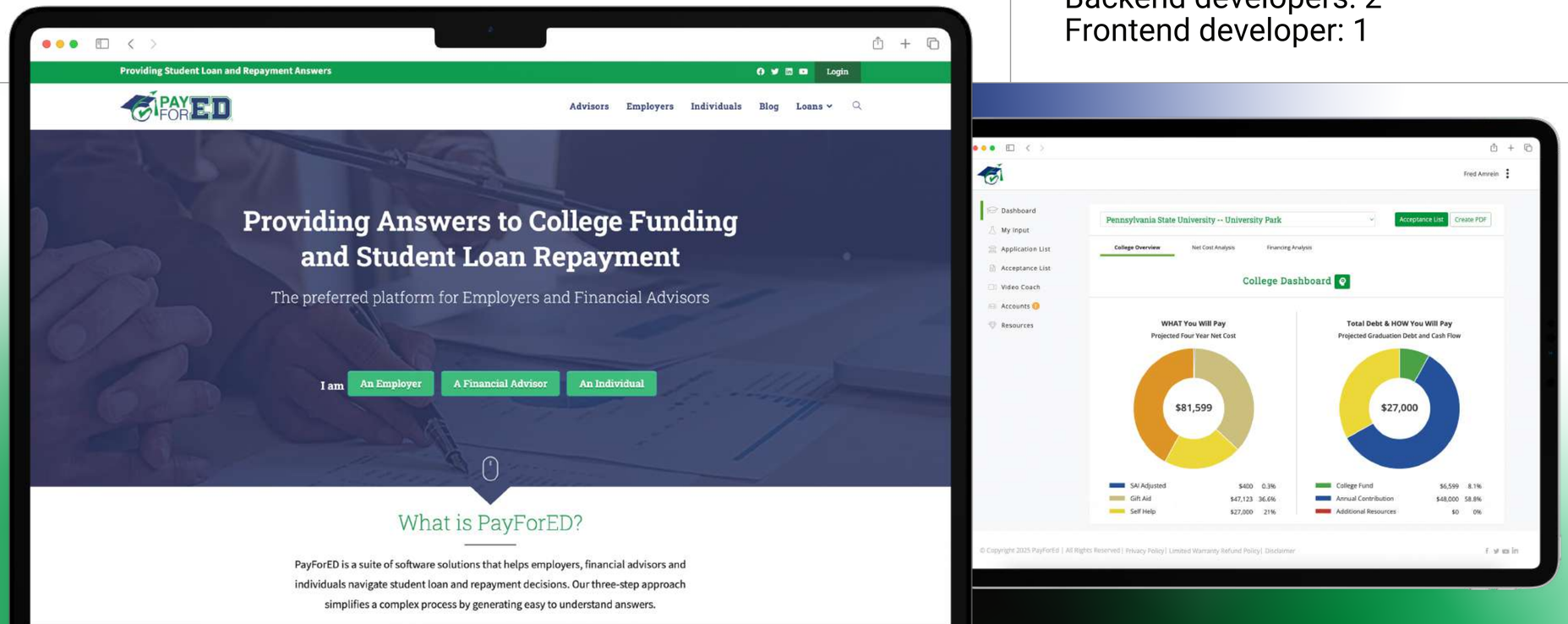
Partner: **PayForED**

Company size: **11-50**

Headquarters: **USA**

Team size:

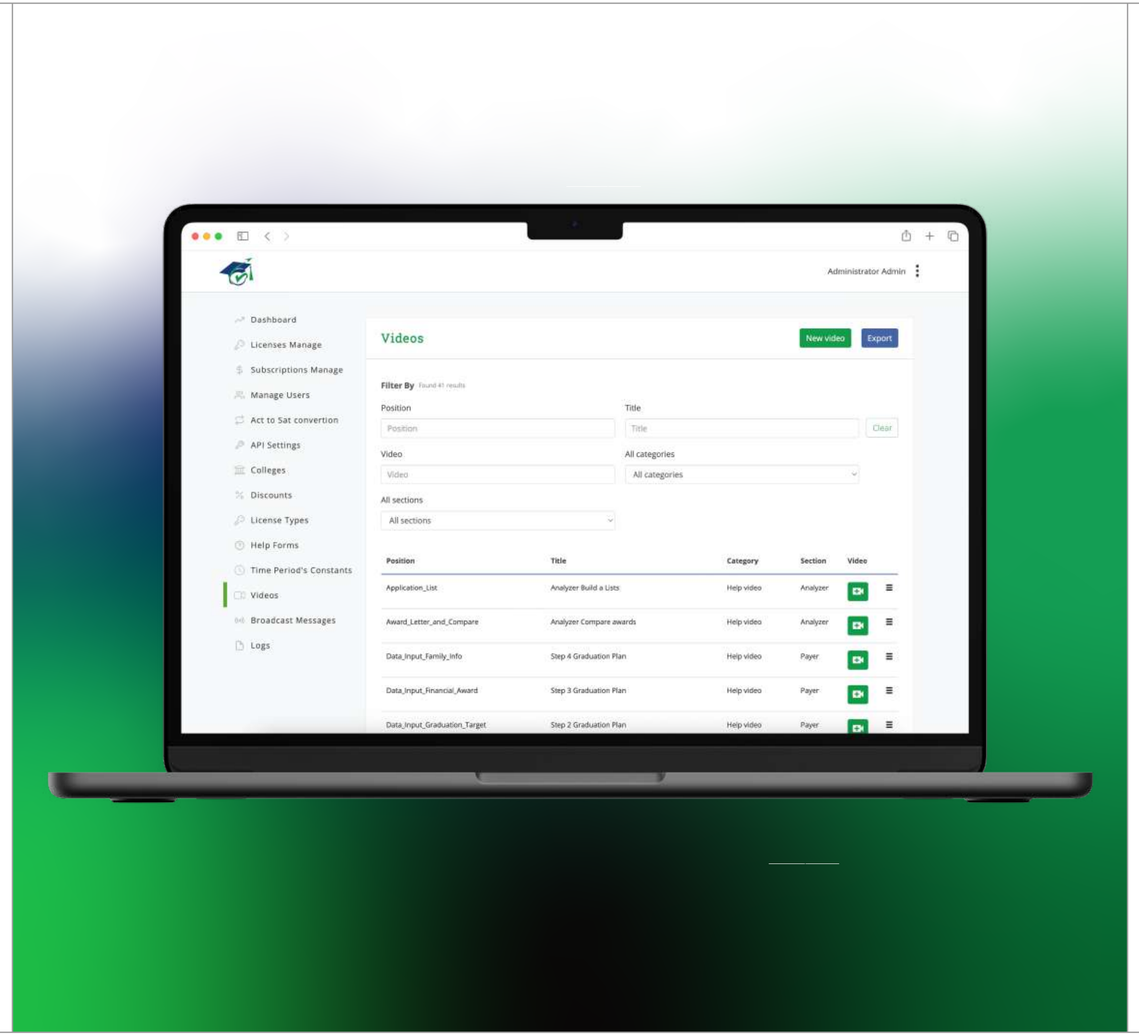
Project manager: 1
Backend developers: 2
Frontend developer: 1



PROJECT OVERVIEW

In early 2024, PayForED, a US education fintech company, engaged our team to maintain and improve their college cost analysis and loan repayment planning platform. PayForED provides subscription-based resources helping financial advisors, employers, and students with their families plan education expenses, select the right financing options, and manage student loans.

Their platform includes three modules: college funding planning, cost management through graduation, and post-graduation loan repayment analysis. Without an in-house development team, they relied entirely on us for platform operations and critical updates to loan calculations as US education regulations and tax laws evolve.



We migrated the system from their previous IT partner to PayForED's infrastructure, reconfigured Docker and CI/CD pipelines, and resolved a critical performance issue. We then established ongoing maintenance covering bug fixes, calculation updates, payment system stability, and UI improvements within a fixed monthly budget, prioritizing high-value changes while avoiding unnecessary refactors. We ensured secure Stripe payment processing across all subscriptions.

Today, PayForED continues serving students, employers, and advisors with informed education financing decisions. Our work keeps their platform stable and accurate to support user needs, despite complex domain logic, tight delivery timelines, and regulatory changes.

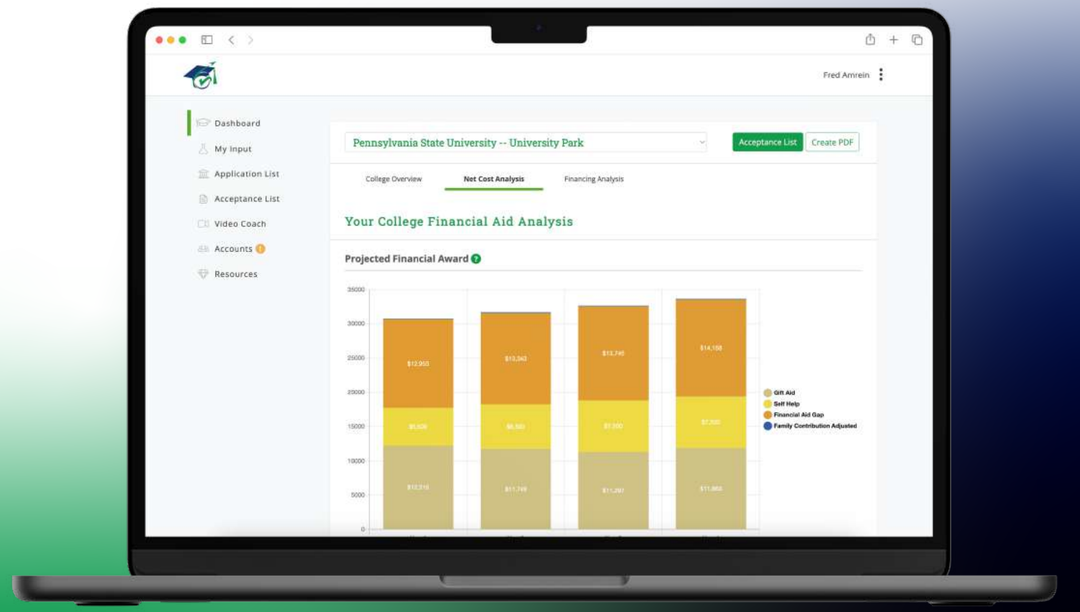
SERVICES & TECHNOLOGY STACK

Provided services

- Web development
- Project management

Technologies & tools

- **Platform:** PHP/Yii2
- **Frontend:** Angular, TypeScript, RxJs, Chart.js, Bootstrap
- **Backend:** PHP 8.0, Yii 2, MySQL
- **DevOps technologies:** Docker, CI/CD
- **Third-party tools:** Stripe
- **Additional tools:** Gitlab



REQUIREMENTS & CHALLENGES

When our partner approached us, their platform was already well-established, with years of accumulated functionality and a diverse audience. Our task was not to reinvent it, but to ensure it remained accurate, secure, and fully functional despite its age, complex logic, and shifting regulations.

The work required balancing day-to-day stability with strategic improvements within a fixed monthly time allocation. We needed to address inherited technical limitations, but each update had to be carefully planned to avoid disruptions to critical calculations, payments, and user flows. Key requirements and challenges included:

Adapting the platform to annual regulatory changes

The platform depends on accurate calculations based on evolving US education regulations and tax legislation. Each year, loan constants, formulas, and datasets must be updated without disrupting existing functionality or introducing errors.

Transferring the codebase to our partner’s repository and restoring development infrastructure

The entire codebase and development setup had to be moved from the previous IT partner’s repository to PayForEd’s. This required re-establishing the Docker-based environment, reconfiguring the CI/CD pipelines, and adjusting server resources to match the previous setup while optimizing for better performance and stability. The transfer had to be seamless so development could continue without service disruptions.

REQUIREMENTS & CHALLENGES

Working within fixed monthly hour

Within a strict monthly time allocation, our team needed to strategically prioritize the issues that would significantly improve platform stability, accuracy, or user experience, while postponing less urgent improvements.

Ensuring reliable payment processing

An invalid SSL certificate caused a disruption in Stripe payments, blocking webhook pre-checks and halting user subscriptions. Our task was to restore payment flow quickly, verify end-to-end webhook routes, and reduce the risk of recurrence with tighter certificate and webhook configuration control.

Restoring operability by resolving critical performance issues

When we began, their platform’s slow response times and instability limited usability and blocked other maintenance tasks. To ensure our partner could continue to serve users, the system needed a significant performance boost. This required addressing the root causes, including outdated PHP and package versions, and implementing targeted updates to improve speed, security and overall stability without service interruptions.

COLLABORATION APPROACH & PROCESS

Collaboration with our partner is built on **consistency, clear communication, and the efficient use of allocated time.** From the start, we established a straightforward collaboration model that let us address high-priority issues while keeping the platform stable and compliant.

We began with a structured onboarding, transferring the codebase and development infrastructure from their IT vendor's to our partner's own repository. Transitioning the development environment to be fully within our partner's control let us work more independently and react to urgent issues quickly.

Our process follows Scrum principles with short planning cycles and a focus on delivering the most impactful changes each month. **Regular communication lets us keep priorities aligned,** whether they're urgent bug fixes, data updates, or smaller UI improvements.

A key part of our collaboration's success is **our ongoing exchange of expertise.** It includes tracking changes in the education industry, detailed documentation of necessary updates, and product planning discussions before implementation. **Their domain knowledge and market awareness,** combined with our technical capabilities, keep their platform **relevant, compliant, and responsive to user needs year after year.**

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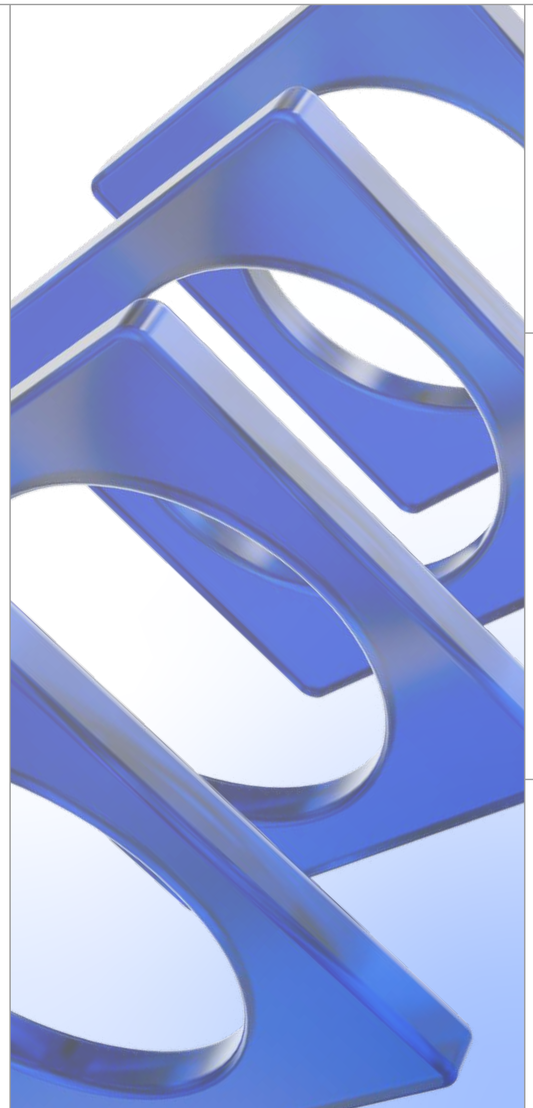
PARTNER TESTIMONIAL



“Working with Aimprosoft keeps our platform stable and easy to support. Their team migrated the codebase to our repository, reconfigured Docker and CI/CD pipelines, and improved performance. Communication is clear, delivery is steady, and they implement changes efficiently, without any service interruptions.”

Fred Amrein,
Founder & CEO at PayForED

STEP-BY-STEP PROJECT FLOW

Stage 1: Kickoff, transfer and environment setup

Our partnership began by analyzing the product, its roles, data flows and codebase. We then moved the entire platform from their previous IT partner's repository to PayForED's. Our team re-established the Docker environment, restored CI/CD pipelines, and adjusted server resources so development could continue without disruption. During this stage, we removed the main blocker to ongoing maintenance by upgrading PHP from 7.2 to 8, updating other packages, and fixing Docker Compose instability. These updates improved baseline security and product performance by 10 times.

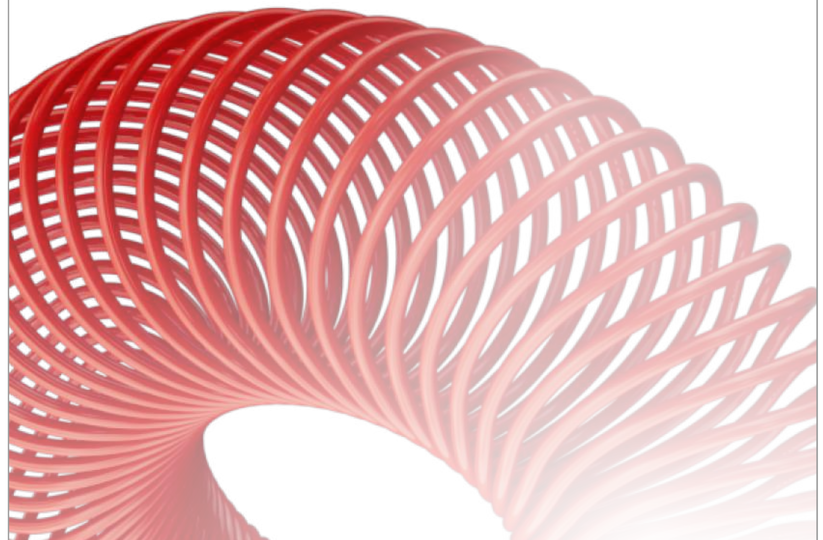
Stage 2: Maintenance and domain-driven updates

With a stable platform, our team focuses on monthly maintenance within fixed hours. We update constants, tables, and formulas to reflect regulatory changes like FAFSA and SAI updates, correct calculations and data visualizations, and fix issues such as unreliable file uploads. When Stripe subscriptions failed due to an expired SSL certificate, we quickly renewed it, updated webhooks, and restored payment processing. Our partner provides detailed regulatory change briefs, and we align on scope before implementation.

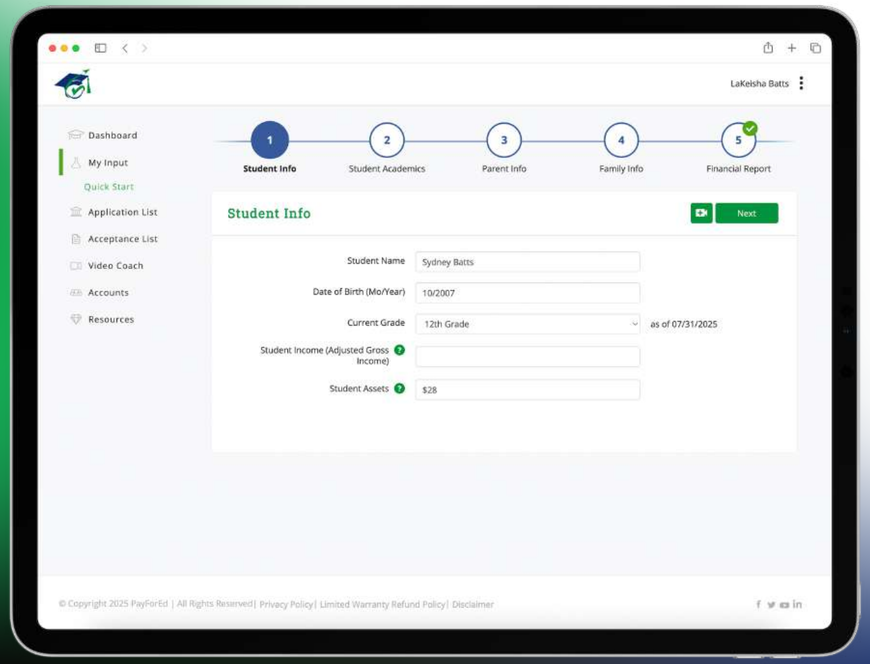
Starting Fall 2025, new legislation required significant back-end and UI changes across all three tools. We used each tool's upgrade as a building block to expedite testing and implementation across the remaining tools. The first two upgrades completed on time; the third is in testing and near release.

Stage 3: Ongoing support and planned evolution

We continue to support regular system updates like loan calculation changes and data refreshes, apply security and performance improvements and conduct Docker and CI/CD health checks and maintenance. Together with our partner, we plan targeted changes to the repayment logic and the college cost analyzer, and explore potential features, like an AI chatbot, while keeping the platform accurate and operational.



PAYFORED'S FUNCTIONALITY



- **College cost analysis and planning:** A guided input wizard collects student and family data and generates a clear report with net price, aid scenarios, and side-by-side college comparisons. Users' experience includes access to help and coaching videos integrated through Vimeo. The system allows access to their accounts and other educational resources.
- **In-college debt tracking and planning:** Enrolled students can import federal and private loans, track current balances, and predict total cost at graduation. The tool calculates available federal repayment options, models budgets for income and expenses, and consolidates clean outputs into a single report to support decision-making. Our team corrects and updates formulas inside the loan import and calculation flow as needed.
- **Loan repayment and forgiveness planning:** Borrowers can review all federal and private repayment paths, compare consolidation and refinancing options, and see how married couples' tax filing options can affect payments and taxes. The system flags growing balances and highlights eligibility for forgiveness programs, providing downloadable reports tailored to each scenario. The system helps users and financial advisors visualize their options over time with insightful graphs.

PAYFORED'S FUNCTIONALITY

- **Admin console for licensing, users and data management:** The admin console lets administrators manage license types for the three modules, subscriptions and user activation or deactivation. It provides remote support and security features like user impersonation to reproduce, analyze and resolve user-facing issues. It also covers tools for discount and subscription management, message broadcasting, data and loan calculations, among others.
- **Subscription and payment processing:** Stripe handles purchases and renewals by license type. Webhooks confirm successful payments in real time, giving users platform access immediately after checkout.
- **Personalized reporting and guided learning:** Each of the platform's three modules produces financial reports with charts and tables, built on Chart.js, so users can view costs, debt trajectories and repayment outcomes without guesswork. The platform includes step-by-step video coaching and reference resources to better understand loan programs, repayment plans, etc.

PROJECT OUTCOMES

Restored performance and stability

We upgraded to PHP 8.0 and refreshed core backend packages and dependencies, eliminating crashes and delivering 10x faster load times, cutting 20 seconds down to just 2-3. These improvements cleared the way for maintenance and kept the platform responsive during peak traffic.

Recovered reliable payments

Subscription activations run in real time without disruption and revenue reports now mirror completed purchases. Customers get immediate access to the platform after checkout, and our partner has clear revenue visibility with built-in audit trails.

Keep calculations aligned with regulatory changes

Loan reports and predictions remain accurate despite regulatory changes, like those that impact FAFSA, SAI, and the various loan repayment options by protecting decision-making for students, advisors and employers. We update loan constants, tables and formulas with each change, verify results against new rules, and correct available graphics where needed.

Stronger security and operations

Their platform passes payment provider checks and now stays stable in production, making it easy for users to purchase subscriptions and use features. Our team reduced exposure to known vulnerabilities by updating technologies, renewing the SSL certificate and routinely updating dependencies.

Deliver the highest value possible within fixed monthly hours

Steady updates let our partner plan product expansion and ongoing maintenance without disrupting their services. Our team prioritizes monthly workload by impact to keep calculations accurate, payments smooth and key flows reliable.

Returned ownership of code and delivery pipelines

With our partner’s entire codebase migrated to their own repository and Docker and CI/CD pipelines rebuilt, PayForEd gained full control over development and releases. This results in faster incident response with a shorter lead time for bug fixes.

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