



# Enabling data-driven digital transformation

Increased productivity through automation and visualization instead of running and analyzing reports manually



**PRODUCTIVITY**

**INSIGHTS**



Improved insights into daily trends to address potential shortfalls by changing strategy and optimizing spend

Enhanced understanding of KPIs and early identification of underperforming marketing campaigns to mitigate risk



**UNDERSTANDING**

Blue Moon Digital Case Study

## Taking the guesswork out of data

“ShakaCode is extremely responsive. They’re always asking the right questions and looking for ways to help us improve our products and share best practices. They think about a lot of the issues you need to consider, such as code quality, performance, scalability, and maintainability.”

**Ryan Grow**, Senior Software Architect at Blue Moon Digital, Inc.



## BLUE MOON DIGITAL

Blue Moon Digital is a digital consultancy offering a full portfolio of digital marketing services focused on helping their clients leverage the power of data to drive digital transformation.

## HIGHLIGHTS

### CHALLENGES

- Build an app that provides a snapshot of critical KPIs to monitor revenue and spend across digital channels, visually tracking performance against goals.
- Develop a weighted pacing feature to help users meet their monthly revenue targets by quickly adjusting to daily or weekly consumer trends.

### SOLUTION

- Technology: Brand new React front-end, Rails back-end, Facebook Flow.
- Team: ShakaCode developers backed by HawaiiChee.com source code and team, including Justin Gordon, the creator of React on Rails.

### RESULTS

- Increased productivity through automation and visualization instead of running and analyzing reports manually.
- Enhanced understanding of KPIs and early identification of underperforming marketing campaigns to mitigate risk.
- Improved insights into daily trends to address potential shortfalls by changing strategy and optimizing spend.

## CHALLENGE

### Leveraging technology to enable data-driven digital transformation

“Our job is to help our clients take the guesswork out of their data,” explains Rachel Hazelwood, Head of Product Management at [Blue Moon Digital, Inc.](#) “Harnessing the power of data gives them the real-time insights they need to make better business decisions. It enables them to quickly identify what’s working and what’s not working and optimize marketing programs by increasing engagement and improving performance.”

Blue Moon Digital is a digital consultancy focused on helping its clients leverage the power of data to drive digital transformation. Providing a full portfolio of digital marketing services, BMDI offers services spanning three core competencies: agency services to promote and engage; analytics and data science services to measure, optimize, and predict; and technology solutions for visualization and automation.

“The challenge of digitalization is developing the capability to analyze vast amounts of data and present the findings in a way that’s actionable,” adds Ryan Grow, Senior Software Architect at Blue Moon Digital. “We help our clients by leveraging our in-house analytics and data science capabilities to develop automated, state-of-the-art digital solutions. These include both our Revenue Equation App and our Universal Tagging Application.”



Blue Moon Digital's Revenue Equation App

### Simplifying digital marketing with predictive performance monitoring and sophisticated tagging

The [Revenue Equation App](#) provides a comprehensive snapshot of digital marketing performance, categorized by channel, device, and visitor type. Analyzing critical KPIs, including AOV (Average Order Value), CVR (Conversion Rate), and ROAS (Return on Advertising Spend), users can quickly see current performance compared to plan, forecast, or previous years’ results. Instead of having to sift through numerous reports for the complete picture, the Revenue Equation App pulls data from multiple sources and presents it via a single intuitive interface.

“We chose Domo as our development platform since it offers data aggregation, dashboarding, and visualization capabilities beyond that of query-based tools,” states Ryan. “With speed critical to decision making in today’s digital economy, Domo provides fast, easy access to unified, cleansed data with automated updates for real-time insights.”

Blue Moon Digital’s [Visual Merchant App](#) seamlessly synchronizes inventory with e-commerce results, providing merchandisers with detailed information regarding category, sub-category, and product performance daily. With this information at their fingertips, they can make near-real-time about inventory, ordering, product placement, and promotions.



Blue Moon Digital's Visual Merchant App

*“Our job is to help our clients take the guesswork out of their data. ShakaCode helps us take the guesswork out of technology.”*

**Rachel Hazelwood** - Head of Product Management at Blue Moon Digital, Inc.



## PROCESS

### Choosing the right framework and partner for delivering data-driven applications

“Frontend development technology is complex and getting more and more complicated every day,” explains Ryan. “Just settling on a framework—let alone developing an app—is an immense amount of work. I had worked with several different frameworks, but chose Rails for the administration interface because it’s great as a rapid prototyping tool.”

With a lack of in-house frontend resources, Ryan looked for a partner who could help develop an app to run within a Domo environment using Rails and React.js.

“Finding ShakaCode was quite easy,” states Ryan. “I had found the `react_on_rails` gem on GitHub. Since we were using both Rails and React, contacting Justin Gordon—the CEO and Founder of ShakaCode and creator of the `react_on_rails` gem—was a natural next step. We initially started a small project where ShakaCode built the initial application stack. Once we understood the way they operated and we worked well together, we continued our partnership.”

## **Leveraging experience to produce desired results**

“We had identified areas where our clients could benefit from some form of automation to analyze the daily, weekly, and monthly behavior of their digital marketing campaigns,” says Rachel. “The Revenue Equation App initially started as a visualization tool to break down and report on key performance metrics for e-commerce sites. However, with most of our clients having a plan or forecast, we needed to change things up and provide the ability to track performance against those goals visually.”

ShakaCode’s experience building sophisticated apps with Ruby, React, and `react_on_rails` provided the skills Blue Moon Digital needed to create an app that matched their clients’ needs. Functionality included the ability to drill down into KPI components for additional insight. It also catered for unique fiscal calendars such as using random dates for reporting periods or utilizing non-standard ways for dividing years into months and quarters.

“Once ShakaCode had incorporated that functionality into the app,” continues Rachel, “we looked for the next feature to develop. With media spend having a significant impact on channel and web performance, we needed a way to measure ROAS. Once ShakaCode had developed that capability, we realized that there was so much more we could do to make the app stand out, delivering features that could make a real difference to our clients’ bottom line.”

## **PROJECT**

### **Developing sophisticated features to meet client needs**

“For our clients to meet their goals,” expands Rachel, “they need to track revenue and spend throughout the month, not just at the end. Providing a picture of how they’re tracking during the month would allow them to optimize their campaigns or shift budget to drive more demand and traffic to meet their plan or forecast. It’s something that we do with our clients on weekly calls, but we wanted to automate the process and present it visually.”

ShakaCode was tasked to develop a weighted pacing feature to help users of the app to meet their monthly revenue targets by quickly adjusting to daily or weekly consumer trends. Based on the month-to-date actual value, spend is estimated proportionately while revenue is weighted prorata according to forecast goals. The model provides the flexibility to create comparisons based on both spend and income, and make operational adjustments accordingly.

“The pacing functionality that ShakaCode delivered will become the future of the product,” confirms Rachel enthusiastically. “It’s enabled us to provide a scientific approach to addressing daily purchasing trends and drill down into areas that are either underperforming or over performing to understand the reasons and mitigate the potential of a shortfall at month-end. It adds real value to our customers and differentiates Blue Moon Digital as a leader in this space.”

## Out of the box thinking for increased flexibility

"It was a complex project with specific technical requirements," adds Ryan, "but I appreciated the way ShakaCode thought outside the box to give us additional capabilities we hadn't originally included in the design."

The original goal was for the Revenue Equation App to be compatible with and available on the [Domo](#) Appstore. However, ShakaCode architected and developed the app to be platform-independent. Not only can Blue Moon Digital use the app with their own backend, but it can also be quickly redeployed in a standalone environment if a client needs access outside of the native Domo environment.

"Instead of using a server to calculate the results and simply display them in the app," explains Ryan, "the data—except for revenue—is fetched directly from the different datasets and calculations performed within the app. This functionality makes the app relatively independent from the backend, giving us the option to separate it for easier integration with new Domo clients or other platforms in the future."

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*"ShakaCode solves all of the hard problems we don't have the time to figure out ourselves. It's really great to have that in a software development partner!"*

**Ryan Grow** - Senior Software Architect at Blue Moon Digital, Inc.

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## Expanding the partnership to other projects

"Since their initial engagement for the Revenue Equation App, we've expanded our relationship with ShakaCode to include other projects," says Ryan appreciatively. "In addition to being easy to work with, ShakaCode's team has a variety of skills we've been able to utilize. One recent example was a client who wanted to implement Google Tag Manager in their iOS application. We didn't have anybody in-house who understood how to make it work the way we wanted, so we asked Justin and one of his team was able to do it for us."

Google Tag Manager enables mobile app developers to dynamically change configuration values without having to rebuild and resubmit the binaries to the app marketplace. As a result, developers can build in features that can be quickly activated in the future by merely adjusting configuration values or flags in the application.

"We've also done some projects with ShakaCode that are ahead of the market," states Ryan. "It's allowed us to try out new things and build on our vision. We're just waiting for the client need to evolve before we bring it out. As a technology company, it's great to have an innovation partner with whom you can share and deliver on a vision knowing they'll be around to help you deliver at the right time."

The result?

## RESULTS

### Increasing revenue, reducing risk, and enhancing shareholder value

"The functionality that ShakaCode developed for the Revenue Equation App has made a huge difference to our clients," states Rachel. "It's enabled them to be more proactive when it comes to identifying underperforming campaigns and optimize spend to drive revenue and reduce risk. That translates to increased profits and happy shareholders."

But that's not all!

"The new functionality has increased the productivity of our internal team," adds Rachel enthusiastically. "Now they spend less time on reporting and more time focusing on the strategic needs of our clients. When the clients see the benefits, they purchase licenses for our technology, which improves our bottom line."

"It's also given them more time to grow the business by going after new clients," expands Rachel. "That adds value to the agency side of our business. So, overall, it's a win-win situation for the entire business. It allows us to position ourselves as a strategic thought leader in the marketplace."

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**Rachel Hazelwood** - Head of Product Management at Blue Moon Digital, Inc.



## Providing expertise and experience for closer collaboration

"We started off looking for a partner to develop a React frontend for Domo," explains Ryan thoughtfully, "but we ended up with a partner who's committed to our business and offers tremendous expertise and experience. Our working relationship with ShakaCode is collaborative. It's enhanced our capabilities and added significant value to Blue Moon Digital and what we can do for our clients. We've also appreciated ShakaCode's flexibility. There are times when we don't have a lot on the go, but when things speed up, ShakaCode always has the resources we need when we need them."

And the prospect of a future relationship with ShakaCode?

"Some of our codebase is outdated," states Ryan, "and we have new features and functionality to be added to our products. Our goal is to rewrite and refactor those with ShakaCode's help to make things a lot simpler and increase their longevity and value for Blue Moon Digital and our clients. We'd like to continue and expand our relationship."

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*"Our clients love the Revenue Equation App. Many have told us that's it's changed their life. Instead of waiting for days to get the information they need to make strategic business decisions, they can walk into the office on a Monday morning and immediately have all the information they need at their fingertips."*

**Rachel Hazelwood** - Head of Product Management at Blue Moon Digital, Inc.

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Would you like to enable  
data-driven digital transformation  
for your clients?



**ShakaCode**  
**makes it happen!**

Email us at [contact@shakacode.com](mailto:contact@shakacode.com)  
for a free consultation.