Case Study

Streamlining DevOps and Cloud Infrastructure for a Climate Tech Organization

Magic EdTech

The Client

The client is a climate deep technology organization developing innovative solutions to combat climate change.

The Challenge

The client struggled with prolonged service downtimes during application deployments, inefficient release processes, and manual tasks that led to errors. These challenges slowed their go-to-market efforts and caused operational inefficiencies, while the lack of defined workflows impacted consistency and quality. Comprehensive DevOps services were needed to streamline operations and support their growth.

Critical Success Parameters

- ✓ Assess the client's current development and deployment processes to identify bottlenecks and inefficiencies.
- ✓ Implement CI/CD pipelines to automate the release process and ensure faster, secure deployments.
- ✓ Centralize the codebase to improve collaboration, version control, and security.
- ✓ Define clear workflows and governance practices to maintain consistency and quality across deployments.
- ✓ Introduce monitoring tools to proactively address issues and optimize performance.
- ✓ Integrate security practices within the CI/CD pipeline to ensure compliance and reduce risks.

Our Approach

- ✓ Migrated the client's codebase to GitLab for centralized version control and improved collaboration.
- ✓ Designed and implemented automated CI/CD pipelines, speeding up releases and reducing manual intervention.
- ✓ Deployed microservices on AWS using Docker and Kubernetes for scalability and reliability.
- ✓ Hosted the application frontend on AWS S3 and used CloudFront for global distribution, ensuring fast access.
- ✓ Automated infrastructure provisioning with Terraform for consistent, repeatable deployments across environments.
- ✓ Set up Datadog for real-time monitoring and used AWS Secrets Manager for secure data management.

Key Result Highlights

40% faster deployment speed.

20% decrease in process errors.

30% improvement in operational efficiency.

25% reduction in security breach risks.

35% decrease in service downtime.

50% increase in resource utilization.