MICHAL FRANC

STAFF/PRINCIPAL ENGINEER • ENGINEERING LEADER • SCALABILITY, RELIABILITY, EFFICIENCY EXPERT

CLOUD NATIVE | AWS | PLATFORM ENGINEERING | INFRASTRUCTURE | SRE | DEVOPS

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Accomplished engineering leader with over 15 years of experience designing building and operating mission-critical software solutions on the cloud. Expert in technical and organizational - scalability, reliability and efficiency. Experienced in reducing friction and delays in the development process with DevOps and Platform Engineering practices. Proven track record of delivering cost savings and creating processes to reduce/slow down cost increases. Skilled in Architecture planning, system design and driving department-level technical vision and roadmaps. Experienced hands-on engineer for critical infrastructure projects. Business value-oriented, focusing on using technology to make an impact for the organization.

EXPERIENCE:

Staff Engineer - Form3 - London / Remote

02.2019 - 07.2024

Cloud-native payments platform for financial institutions. As one of the first platform engineers, I have been one of the core team members that designed processes and architecture which laid the foundation for scaling up from 20 to 500 engineers, and took the product through two funding rounds - Corporate (\$33M) and Series C (\$160M). I have designed, built and led to success, many critical parts of the infrastructure handling every inbound and outbound request.

- Platform engineering strategy, roadmap and cross-organizational alignment in Observability, SDLC and DevEx area.
 - Supporting 3 engineering teams (12 engineers). Bootstrapped one of the teams and scaled the whole department by using leadership, designing processes, training and workshops.
 - Build a roadmap and vision for the whole observability solution, championing efficiency and responsible usage of resources which led to significant cost decrease and important culture changes making costs/profit being important non functional requirement

Designed, led and delivered with no downtime and no negative impact:

- Request signature security feature, used by all the ingress requests, by extending Kong API Gateway using Lua, Terraform, AWS, Consul and Vault, to provide data repudiation capability, it was a critical work for acquisition of new customers
- Egress filtering security solution, used by all the egress requests, using Golang, Squid, k8s, AWS and Terraform to provide enhanced security features required by certifications and new customers
- DNS tunneling protection solution, used by all the DNS queries in the system, using Golang, CoreDNS, k8s, AWS and Terraform - to provide security improvements required by new customers
- Custom-built control plane for DNS cluster on top of ECS using Python, AWS Lambda and Terraform to remove a 1% chance of 20-30s DNS downtime during cluster deployment

Improved cost efficiency:

- Build visibility and ownership of the observability costs and build processes using Grafana that led to a 40% drop in costs of metrics/logs. Created processes and models to predict usage growth in metrics/logs area using linear regression, Python and Grafana, to improve budgeting and planning and slow down the growth of costs.
- Co-created company-wide strategy to lower cloud costs analyzed usage and created initiatives to save 600k\$+ a year
- Improved FinOps processes around Oncall payments and championed sustainable growth culture, built the processes to slow down the growth of costs and creating a vision for shift left budgeting
- Saved 250k\$ a year by creating a self-hosted metrics strategy for non-critical development based workloads, creating company-wide buy-in and delivering it

Improved reliability:

- Customer configuration management by using Terraform to improve time to complete onboarding metrics and lower the operational costs, saving engineering time
- Monthly production reprovisioning process by redesigning it and providing training, workshops and documentation changes to lower the impact, by 90%, on requests in-flight, to prevent incidents and lower engineering time spent on
- Migrated one of the core payment flows from a custom VPN solution to Direct Connect one using Terraform and AWS reducing the number of incidents by 50%
- Build a strategy of moving custom-built self-hosted metrics solution to SAAS based one for critical workloads and created migration plans to improve, significantly, reliability of observability.
- Subject matter expert for other teams, in the area of infrastructure automation, reliability, scalability and observability
 - Supported, with architecture-level decisions, the creation of the new product in the metrics area that created a new revenue stream for the company
 - Trained team members on the incident handling and OnCalls by doing workshops and knowledge-sharing presentations

Established a new team that took over bootstrapped data analytics MVP created by a consultancy team, prepared, launched and scaled the product from 0 to more than 50k+ restaurant partners. Responsible for reliability and scalability of the product and engineering roadmap/architecture.

• Designed, led and delivered with no downtime and no negative impact:

- GDPR-related features on top of ElasticSearch and AuroraDB like crypto shredding and data encryption to ensure compliance with new regulations being rolled out in the European Union
- Restaurant scoring system using C#, AWS, ElasticSearch and RDS to improve marketplace search functionality and promote the best possible restaurants to end customers improving customer satisfaction by up to 10%
- Restaurant partners performance product using C#, AWS and ElasticSearch to improve restaurants efficiency and performance which led to customer satisfaction being improved by up to 5%

• Improved efficiency:

- Created company-wide strategy and recommendation to scale down overprovisioned ElasticSearch clusters saving up to 250k\$ a year
- Created dept wide initiatives on downscaling EC2 instances and adopting AutoScaling solutions to save up to 75k\$ a
 year
- E2E tests runtime and QA tear up/tear down improvements to save up valuable developer time and improve the time to delivery of new features
- Architecture vision and guidelines improving team understanding of the overall design and solution
- Working processes improvements created processes for measuring business metrics and making them visible to developers which improved motivation and understanding of features being built

Improved reliability:

- Rearchitected the solution from using predominantly ElasticSearch as the master data store to a solution split into two data stores one centered around more reliable RDS and one being a read-only projection on ElasticSearch this improved reliability
- Designed disaster Recovery solution built on top of RDS using EventLog oriented approach which improved reliability this was shared with another team saving 2 months of development time for that team
- Established OnCall process to improve reliability-oriented metrics like TTR
- Build company-wide ElasticSearch cluster observability dashboards and alerts standards to improve reliability and Time to Recovery

• Subject matter expert:

 Championing DevOps-oriented culture. Increased engineering awareness on how to build, scale and operate, business-critical, highly available products, decreasing TTR and increasing MTBF

Lead Engineer - <u>JustGiving</u> - London

01.2014 - 03.2017

- Developed a comprehensive Salesforce integration that helped to scale the Charity onboarding process. It has cut the operational costs by around 30-40%, scaled the process and increased charities NPS scores.
- Led and built a new JustGiving Campaigns product using C#, AWS and AngularJS team building product from inception to go-live phase, providing a new stream of revenue for the company.
- Led and built a new Crowdfunding product using C#, AWS and React 100 mln GBP raised through the product. Rapid
 data-driven growth and development with close Data Scientist collaboration. This product was crucial for the 95 mln GBP
 JustGiving acquisition.

Software engineer role in various companies - Poland

03.2010 - 12.2013

EDUCATION:

M.Sc. Applied Software Engineering

2011 Wroclaw University of Technology