



Reference Letter

In 2019, **Adam Walczak** joined our team as a **System Architect** to face the task of expanding the architecture of the ewejsciowki.pl (from 2022 kicket.com) ticket sales platform to new market challenges. At that time, our technical infrastructure was relatively simple, relying on a single dedicated server, which inevitably led to growing performance issues, especially during peak load periods. Adam diagnosed these challenges and developed a strategic plan to migrate our services to the **Kubernetes** platform. In collaboration with the development team, he effectively eliminated all elements from our **Java**-based backend that hindered horizontal scaling. Thanks to these actions, our system began to evolve towards **automatic scaling**, which resolved the initial overload problems. Adam also placed a strong emphasis on service **monitoring**, comprehensively implementing the **Datadog** solution. This move significantly increased the team's operational awareness, enabling us to proactively respond to incidents, often even before receiving the first reports from users.

The next strategic step was the transition to a **micro-services** architecture. The goal of this transformation was to significantly expand the functionality of our **SaaS** offering for cultural event organizers, including systems such as the white-label ticketing software, Dashboard, POS, and ticket scanner. As part of these efforts, we also completed an ambitious project related to Dynamic Pricing, which enriched our technology stack with services utilizing **Python**, **R**, **machine learning**, and **TensorFlow**.

Thanks to his consistently demonstrated initiative and diligence, Adam gained immense recognition within the development team, which naturally led to him taking on the role of **Tech Lead** in 2021. In the following years, together with the team, he continued to expand the platform's functionality and its ability to operate under heavy load. Key in this regard was the implementation of **PostgreSQL** database replication and the **Kafka** system, which enabled the implementation of advanced architectural patterns such as **Event Sourcing**, **Transactional Outbox**, **CQRS**, and **Reliable Messaging**. Concurrently, we decided to rebrand the company to kicket.com and initiated a new research project. Its goal was to develop a solution capable of handling sudden sales surges (so-called "sales peaks") without the need to launch multi-hour virtual queues for users, as observed on platforms like Ticketmaster. As a result of these actions, Adam initiated the creation of a new team within the company and made a domain-based division of the platform's components into: Back Office, Front Office, and Data Analytics. Together with the Back Office team, he developed a prototype of an innovative processing pattern of reservations that compete for the same seats in one event. In synthetic tests, this solution demonstrated the ability to sell 60,000 seats among hundreds of thousands

of interested users in under 15 minutes. Meanwhile, in collaboration with the Front Office team, he unified our frontends based on the **Angular** framework. Due to the company's dynamic growth and the transformation of a single development team into an entire technology department, Adam was appointed to the position of **CTO**.

In 2024, we presented Adam with another ambitious challenge: **coordinating the technological aspect of a company merger**. He played a key role in acquiring a strategic investor – Piletilevi Group (PLG) – which provided the necessary capital to merge kicket.com with biletomat.pl. The kicket.com technology department and its technological achievements underwent due diligence audits with very high ratings, which significantly strengthened our negotiating position and contributed to the successful finalization of the transaction. Within a year, Adam successfully integrated biletomat.pl developers into kicket.com's structures, leading to the merger of both services and enabling the migration of organizers to the kicket.com platform.

Over these years, I have come to know Adam as an individual incredibly motivated to create world-class IT systems. His diligence and consistency in maintaining high technical standards have earned him the respect and loyalty of the development team. Particularly noteworthy is his ability to manage projects from both a detailed and a high level perspective. Despite the company's dynamic growth, Adam still actively participates in the code review process, supporting developers both in implementation matters and through a strategic view of the system architecture and team organization. I consider him one of the key figures whose long-term contributions enabled kicket.com to achieve the position of the second-largest ticket selling platform in Poland.

Sincerely,



Maciej Wartacz

President of the Management Board of kicket.com sp. z o.o.
Part of AS Piletilevi PLG

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