Shay
Kalyan

shaykalyan@outlook.com
Seattle, WA
+1 425 589 5644
GitHub, LinkedIn, shaykalyan.com

Experience

Senior Software Engineer   2022 – current
Software Engineer   2016
Microsoft, Redmond WA

Xbox Services (2019 – current)

- Developed and shipped .NET microservices in a backend-for-frontend (BFF) architecture to power Xbox Store experiences across multiple surfaces (i.e., console, PC, mobile), collectively serving over 10k requests per second (RPS) globally with high reliability (99.99%+ success rate).
- Architected and optimized services to serve real-time product data to clients. Moving pieces include the ingestion of Microsoft-wide product catalog into Xbox's infrastructure to the processing of complex business rules using distributed message workflows with a throughput of over 2,000 products per second. Utilized SQL DBs with compression to save over 40% in storage costs along with cache layers in the hot path to improve request latencies from 200ms+ to 20ms. Primary developer of business logic and RESTful APIs, writing over 80% of the code and reviewing the rest.
- Managed priorization and backlog grooming for the team in support of organizational objectives and key results.
- Created an automated solution to rapidly detect and recover corrupt service nodes, significantly reducing Time To Detection (TTD) and Mitigation (TTM) from over an hour to minutes. This played a critical role during the rollout of the new Xbox Console Store in late 2020, preventing over 30 occurrences of live-site incidents and eliminating the need for manual intervention.
- Partnered with developers in a cross-organizational effort, working in unfamiliar codebases, to support various Xbox scenarios including optimizing gaming add-on licensing flows used by titles such as Forza Horizon 5 and Halo Infinite avoiding millions of unnecessary 10MB stubbed blob transfers per legacy implementation.
- Mentored interns and new hires, acclimating them to the culture and processes to guide them towards success. All three mentored interns completed their respective projects and joined the company as full-time employees.
- Promoted Xbox Culture as part of Culture Team, hosting meetups and coordinating charity initiatives. Led to a 10%+ increase in employee participation in 2021 charity events.
- Participated in hiring events for the organization by interviewing early-to-mid career candidates, evaluating their technical performance and engineering competencies per company-driven criteria to determine hireability.

Windows Engineering System Services (2016 – 2019)

- Integrated dynamic virtual machine allocation using C# and a suite of managed microservices to evolve the Windows OS test orchestration infrastructure. Resulted in reduced physical lab costs with specific hardware now virtualized, reduced maintenance given compute fungibility, improved performance with modern compute and storage, and increase test completion reliability from below 90% to 99%+.
- Developed cloud-scalable services using Azure Service Bus distributed messaging, Azure Service Fabric service orchestration, and Azure Cosmos DB (NoSQL) storage technologies.
- Established continuous integration and deployment practices using Azure DevOps, championing its adoption across the team.

Intern Software Engineer   2015
Microsoft, Redmond WA

- Implemented a proof-of-concept dynamic virtual machine allocation in the internal Windows test orchestration system using C#, XML, and Perforce version control. This was integrated with the existing distributed microservices architecture.

Languages and Technologies

Languages   .NET / C# with working knowledge of SQL, JavaScript, HTML/CSS

Technologies   ASP.NET, Azure (Service Fabric, Service Bus, EventHub, CosmosDB, Storage, Functions), Terraform (Infrastructure as Code), Kubernetes

Other   Distributed Systems, API Design, CI/CD

Education

Bachelor of Engineering (Honors), Software Engineering (A+ Average)   2012 – 2015
The University of Auckland, New Zealand

- Dean's Honours List: awarded to the top 5% of Software Engineering students in the academic year (2012, 2013, 2014).
- Six First in Course awards: received the highest overall marks in courses (SOFTENG 370, 325, 306, 206; COMPSCI 314; ENGGEN 131).

Projects and Open Source

Professional Blog
shaykalyan.com

- Posts include Review the code, not the coder and Have a new Outlook on productivity.
- Website built with HTML, Sass (CSS preprocessor), and a static blog using 11ty, hosted via GitHub Pages.

Tab Notes Browser Extension
github.com/telemaciek/tab-notes

- Contributed to a Chrome extension that replaces the browser's New Tab Page with a "notepad" by adding a dark mode theme and UX to toggle. The extension has over 5,000 active users.