Shay
Kalyan

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Experience

Senior Software Engineer   2016 – current
Microsoft, Redmond WA

Xbox Services (2019 – current)

- Developed and shipped .NET microservices in a backend-for-frontend (BFF) architecture to power Xbox Store experiences, serving 10k+ requests per second (RPS) globally with high reliability (99.99%+ success rate).
- Designed and implemented services to serve product data to clients; from the ingestion of Microsoft-wide product catalog into Xbox's infrastructure to real-time processing abiding by complex business rules. Leveraged Azure Service Bus for distributed message-based workflows with throughput of over 1000 products per second, persisted data in Azure SQL DBs with compression to save over 40% in storage costs, and various cache layers to improve request latencies. Primary developer implementing business logic and RESTful APIs (wrote over 80% of the code, reviewed the rest) to serve product data in real-time.
- Involved with the team's work management, sprint planning, and prioritization and backlog grooming in support of organizational objectives and key results.
- Instrumented the first automated solution to identify and recover corrupt service nodes, triggered by telemetry signals to mitigate live-site incidents. Automation was crucial during rollout of new Xbox Console Store, reducing Time To Detection (TTD) and Mitigation (TTM) down to minutes from over an hour and the need of manual operations.
- Drove cross-organizational development efforts, working in unfamiliar codebases in support of Xbox scenarios including work to improve product licensing flows of game add-on content used by titles such as Forza Horizon 5 and Halo Infinite.
- Mentored interns and new hires. Helped them acclimate to the culture and processes to guide them towards success. All interns mentored completed their respective projects and accepted offers to join as full time employees with the company.
- Promoted the Xbox Culture as a member of the Culture Team. Hosted meetups with early in career individuals as well as coordinated various initiatives in the organization's yearly charity events leading to a 10%+ increase in employee partipation in 2021.
- 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)

- Evolved the test orchestration infrastructure for the Windows OS by integrating dynamic virtual machine allocation using C# and a suite of managed microservices resulting in reduced physical lab costs, improved performance and developer loop cycle times, and increased reliability of end-to-end test passes with greater compute fungibility compared to static setups.
- Developed Azure-driven, cloud-scalable services leveraging 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 taught courses (SOFTENG 370, 325, 306, 206; COMPSCI 314; ENGGEN 131).

Projects

Personal Website, Blog
https://www.shaykalyan.com

- A personal website built from scratch with HTML, Sass (CSS preprocessor), and a static blog using 11ty, hosted via GitHub Pages.
- Blog posts include Review the code, not the coder and Have a new Outlook on productivity.

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

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