Satyam Saini

stym.6996@gmail.com | +91-9810910924

linkedin

Education

Bachelor of Engineering - Computer Science **Aug 2014 - May 2018**

NSIT *New Delhi, India*

Skills

Languages: C#, SwiftUI, C++, C, Python, Ruby on Rails, Objective-C, HTML, SQL

Backend & APIs: REST APIs, Microservices Architecture, AWS Lambda

Cloud & Infrastructure: AWS (EC2, S3, Lambda), Terraform

Databases: PostgreSQL, Redis, iCloud DB, MySQL

Tools: Unity, GIT, Perforce, Jira, Docker, CI/CD Pipelines

Platforms: iOS, Apple Arcade, Android, Tizen OS

Experience

Senior Software Engineer II - Zynga **Sept 2021 - Present**

1010! Block Puzzle Game

- Led a cross-functional team of 4 developers to conceptualize and ship a major feature, **increasing ARPDAU by 30%** and contributing significantly to quarterly revenue goals.
- Developed a dynamic difficulty adjustment (DDA) engine using behavioral cohort analysis, leading to a **5% increase in D1 and D7 retention.**
- Optimized memory management by identifying and resolving critical leaks, leading to a **25% improvement in app stability** on lower-end devices and **reducing crash rates by 18%**.
- **Reduced app size by 12%** by modularizing assets and compressing unused libraries, directly contributing to faster downloads and improved retention.
- Authored detailed technical documentation and architectural diagrams, accelerating onboarding time for new engineers.
- Introduced and led quarterly codebase health reviews, reducing technical debt and improving **team delivery velocity by 20%**.
- Designed and executed an alternate replica of the core game with UX improvements, running successful A/B tests for unbiased User Acquisition (UA) strategies.

Boggle: Arcade Edition (Apple Arcade)

- Developed a client-authoritative, secure turn-based PvP game using Apple GameKit, **reducing infrastructure costs by 90%**.
- Implemented cross-device gameplay synchronization using **iCloud DB**, ensuring consistent game state and smooth transitions between devices.
- Developed custom backend instrumentation for analytics and gameplay events using **Python** and **Terraform**, tailored for Apple Arcade's data requirements.
- Built the **first Apple Arcade game** ever entirely on Apple's own infrastructure, earned a special recognition from Apple for innovation.
- Implemented game controller support from scratch for our game **without relying on packages or SDKs**, ensuring compatibility with iOS 13 despite significant compatibility challenges.
- Designed and implemented a real-time lobby system supporting up to **32 concurrent users** over FaceTime SharePlay, setting a new technical benchmark for arcade games.

Crosswords with Friends

- Refactored legacy codebase (10+ years), introducing modularization and dependency injection, reducing feature delivery time by **40%**.
- Migrated a shared backend service to a standalone infrastructure for Crosswords and related titles, successfully decoupling from sister teams and enabling independent deployment, scalability, and feature velocity.
- Independently scoped, developed, and launched 7+ major features, collectively increasing player **LTV by 100%** while maintaining 99.6% crash-free sessions.
- Developed a **Ruby on Rails** API to manage player subscription status and entitlement logic, enabling seamless reward delivery and consistent subscription benefits across devices.
- Automated a 3-day monthly cadence task to a 4-hour process, significantly improving team velocity.
- Designed and implemented a client-side caching strategy that cut loading times by **75%**, resulting in improved player retention and session length.

Software Engineer - Samsung **Jul 2018 - Aug 2021**

Tizen OS

- Developed profiling tools to simulate real user interactions, replacing 100+ hours of manual testing.
- Designed a modular pipeline for automated memory leak detection and analysis using backend scripts integrated with CI pipelines.
- Built a custom data ingestion service in Python to process performance logs from Smart TVs, storing telemetry in MySQL for time-series analysis and debugging.
- Created a lightweight REST API to expose real-time TV diagnostics and performance metrics to partner teams, improving issue turnaround by **40%**.
- Identified and resolved performance bottlenecks in the Tizen OS across multiple product cycles.
- Developed and enhanced the Tizen platform, integrating multiple features for future Samsung market TVs, resulting in a **5% increase in session time**.

Notable Project

Iris Recognition System **Mar 2018 - Apr 2018**

- Developed a full-stack biometric authentication system using iris recognition.
- Trained on IIT Delhi's iris dataset, improving matching speed and accuracy over traditional algorithms (e.g., Daugman's, Hough Transform).
- Delivered a working prototype that demonstrated improved precision and performance.