

Project Name:	NotifyEngine
Team:	Algo-Rhythms
Project Description:	<p>For application developers and SaaS teams who need to send notifications across multiple channels (email, SMS, push, in-app)</p> <p>the NotifyEngine is a multi-tenant notification delivery service with adaptive channel routing that uses an XGBoost ML model trained on delivery outcome data to predict which channel will get the highest engagement for each recipient, learning time-of-day preferences, channel fatigue, and behavioral shifts automatically unlike AWS SNS, Courier, Knock, Novu, and OneSignal which provide developer-friendly APIs but rely on static routing rules, and Braze and MoEngage which offer intelligent channel selection only within expensive enterprise marketing platforms, our application combines a simple developer API with per-user ML-powered channel optimization, making intelligent delivery accessible to any team at any scale.</p> <p>our application learns per-user behavioral patterns from real delivery data and optimizes routing automatically without developer intervention.</p>
Benefit Outcomes:	<p>Higher engagement rates by routing through each user's most effective channel based on observed behavior, not developer guesswork</p> <p>Reduced developer overhead by eliminating manual per-user routing rule configuration</p> <p>Automatic incident recovery through circuit breaker pattern and channel fallback when a provider degrades</p> <p>Lower delivery costs by surfacing when cheaper channels (email, WebSocket) are equally effective as expensive ones (SMS)</p> <p>Full delivery visibility through real-time dashboard, per-recipient routing explanations, and model explainability</p>
GitHub Link:	https://github.com/htmw/2026S-Algo-Rhythms/wiki