



Gurinder Singh

Staff Software iOS & AI/ML
Engineer

Portfolio | [LinkedIn](#) | gsingh622@yahoo.com



SCAN FOR
PORTFOLIO

Career Summary

Staff iOS & AI/ML Engineer with over a decade of experience scaling applications for **millions of users**. **Patent-holder** and technical leader specializing in bridging cutting-edge AI/ML with practical mobile solutions. Proven track record of building **legendary apps at global scale**, from startup innovation to enterprise solutions serving **90M+ users worldwide**. Passionate about mentoring engineers, conducting technical interviews, and fostering inclusive tech communities while driving innovation at the intersection of iOS and artificial intelligence.

90M+

Users Impacted

28+

Hackathons

2x

1st Place Wins

Patent

Holder

Core Skills

Languages & Frameworks

Swift, SwiftUI, Python, TypeScript, Next.js, FastAPI, Vapor, Objective-C, Flutter/Dart

AI/ML Stack

LLM Agents, RAG Pipelines, LlamaIndex, Supabase, ChromaDB, Pinecone, Core ML, MLX, LoRA, Stable Diffusion

Mobile Systems

UIKit, WidgetKit, Dynamic Island, SwiftData, Realm, Combine, UIKit, Async/Await

Cloud & Infrastructure

Supabase Edge Functions, Docker, RunPod, DataDog, AWS Serverless, Lambda, DynamoDB

Dev Practices

CI/CD Automation, Observability, Snapshot Testing, State Machines, Accessibility

Creative Tooling

FFmpeg, ComfyUI, ElevenLabs, Whisper-MLX, MCP, Bluetooth Low Energy (BLE)

Experience

Staff iOS Engineer → Applied AI/ML Engineer

PayPal / Venmo

2020 – Present

AI/ML Evolution & Technical Innovation (2023–Present)

Team Mercury – AI-Powered Agentic E-Commerce Platform (October 2025)

- Built PayPal/Venmo's **first applied agentic AI platform** for autonomous merchant onboarding
- Pioneered AI image generation with custom **SDXL LoRA models** producing professional imagery in ~30 seconds, **saving merchants \$100–\$500 per product**
- Delivered **first org-wide MCP integration** for seamless AI agent orchestration
- Achieved **58.5 GPU hours training, 23% loss reduction**, 109MB production-ready model
- Implemented multi-platform automation managing Venmo, Honey, Facebook/Meta, Google Ads, and TikTok

AI/ML Implementation & Automation (2024)

- Developed **AI-powered crash detection system** using LangChain + DeepLake – **now adopted org-wide**
- Created **10%+ productivity improvements** via AI-powered automation tools
- Championed AI coding assistants across teams

iOS Engineering Excellence & Business Impact

Major Product Launches & Partnerships

- **Amex Partnership (2020):** Built payment-splitting for **\$400M partnership deal**
- **Pay With Venmo Checkout (2024–Present):** Key stakeholder with server-side Swift implementation
- **QRC Touch-Free Payments:** Led initiative winning **\$60M CVS contract**
- **Venmo × Amazon Partnership (2023):** Built sandbox/integration app in **two days**

iOS Innovation & Patents

- **QRC Widget Patent (2022):** Filed "Interface Widget Tool for Automatic QR Code Generation" – **Reduced user friction by 66%**
- **Dynamic Island / Live Activities:** Built end-to-end infrastructure with server-side Swift
- Architected features reaching **millions of active users**

Technical Leadership

- Mentored cross-functional engineers on concurrency, accessibility, and feature-flag development
- Partnered with Design Systems to create SwiftUI component library that **cut development time by 30%**
- Built internal AI observability tooling using DataDog

iOS Developer/Consultant

Google Stadia

July 2019 – 2020

- Worked on Google Stadia for mobile platforms in Flutter/Dart
- Leveraged iOS expertise for native plugins and crash debugging

iOS Developer/Consultant

Morgan Stanley

April 2018 – July 2019

- Hybrid Banking and Wealth Management apps for iOS
- Key features: check-deposit, **biometric authentication**, certificate-pinning, jailbreak detection
- Migrated codebase from 98% Objective-C to 80% Objective-C / 20% Swift

Technical Leadership & Team Building

Advisory Board & Strategic Leadership

- **Advisory Board Member** for multiple tech startups on iOS architecture and AI/ML implementation
- Conducted **technical interviews** for senior iOS and AI/ML positions
- Strategic advisor on product roadmap decisions and technology stack selections

Mentorship & Knowledge Sharing


- Hosted technical workshops: **SwiftUI, State Machines, AI/ML image generation, DataDog automation**
- Created comprehensive documentation for ML architects and non-technical stakeholders
- Onboarded and mentored multiple senior engineers with growth plans and advancement advocacy

Hackathon Achievements & Innovation

28+ hackathons attended across **6+ countries** as participant, mentor, and judge. Earned **2 first-place wins** and served as judge at Yale (2x). Recognized globally for innovation and technical excellence.

 **MLH @ Bloomberg London (2017)** 

Automated Search & Rescue System – Won among 500+ participants. **Featured in BBC documentary.**



 **Devcamp NYC (2016)** 

Talent Management App – Won among 300+ participants at Google NYC.

 **HackZurich (2018)** 

AR Car Buying Tool – Finalist among 400+. Featured in Credit Suisse interview. **Attended HackZurich 4x**

Mentorship & Judging

- **Hack Yale** – Judge (2x) – Yale University 
- **PenApps** – Mentor – University of Pennsylvania 

Cultural Impact & Community Leadership

Diversity & Inclusion

- **Interfaith ERG Chapter Lead (Sikh community):** Organized events, secured speakers, created educational content
- **Built next generation:** Represented Venmo at Yale hackathons and high school tech education initiatives

Recognition & Awards

- **Multiple PayPal Props Awards:** Paragon (5000 pts), Phenom (1500 pts), Powerhouse (750 pts)
- Consistent **"Successful" performance ratings** with leadership principle exemplification
- Recognized for: **Customer obsession, innovation mindset, collaboration excellence, building next generation**

Education

New York City College of Technology, Brooklyn

BS in Computer Systems (Deferred)

2012 – 2016

Building legendary apps at the edge of iOS & AI.