



# Gurinder Singh

Staff Software iOS & AI/ML Engineer

*Building legendary apps at the edge of iOS & AI*

 Portfolio

 LinkedIn

 gsingh622@yahoo.com



SCAN FOR PORTFOLIO

**90M+**

USERS IMPACTED

**28+**

HACKATHONS

**2x**

1ST PLACE WINS

Built with  



PATENT HOLDER

## 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.

## 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

ActivityKit • 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**

- ▶ 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

 **iOS Engineering Excellence & Business Impact**

- ▶ 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
- ▶ 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

 **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).



### 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+. Attended HackZurich 4x

## EDUCATION

---

### New York City College of Technology, Brooklyn

BS in Computer Systems (Deferred)

# COMPREHENSIVE TECHNICAL SKILLS (ATS / RECRUITER REFERENCE)

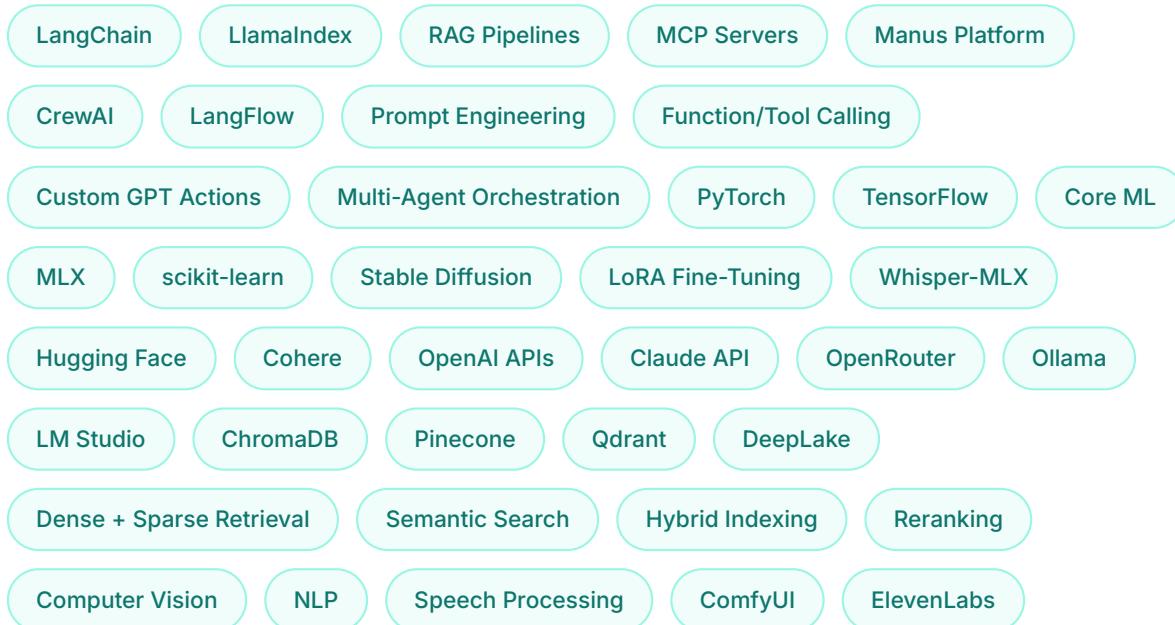
This page provides an exhaustive list of technologies and tools for ATS optimization and detailed recruiter reference. For high-level overview, please refer to Core Skills on page 1.



## Languages & Frameworks



## AI/ML & Intelligent Systems





## Mobile Development (iOS + Cross-Platform)

iOS SDK

UIKit

ActivityKit

WidgetKit

Dynamic Island

ARKit

Core Data

Core Location

Core ML Integration

On-Device Inference

SwiftData

Realm

Combine

RxSwift

Async/Await

BLE

XCTest

Snapshot Testing

Swift Package Manager

Cordova

Accessibility (A11Y)



## Web & Application Development

Serverless APIs

Edge Functions

PWAs

SSR / SSG / ISR

Authentication (OAuth, JWT)

RLS (Row Level Security)

WebSockets

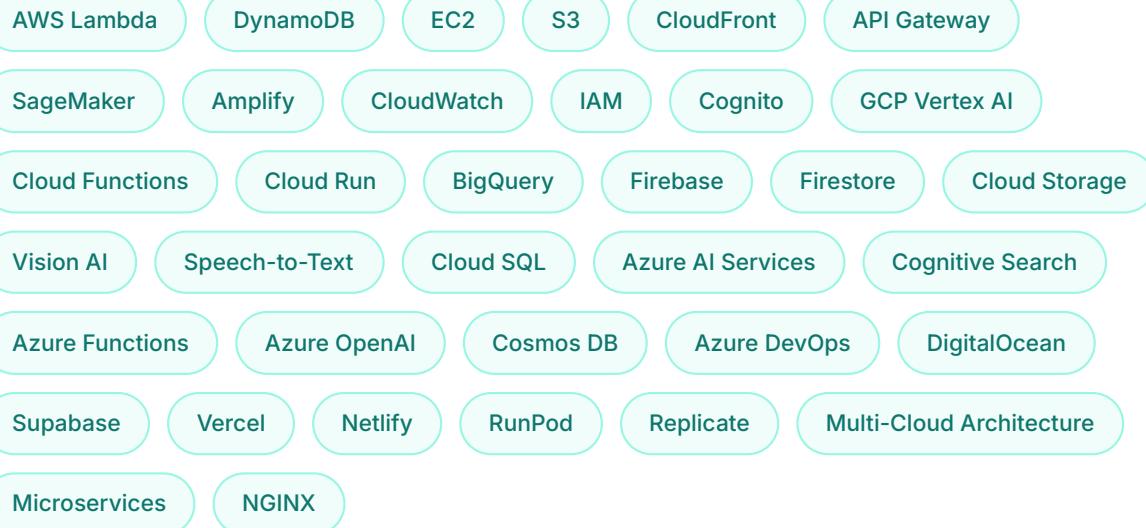
Realtime Communication

SEO Optimization

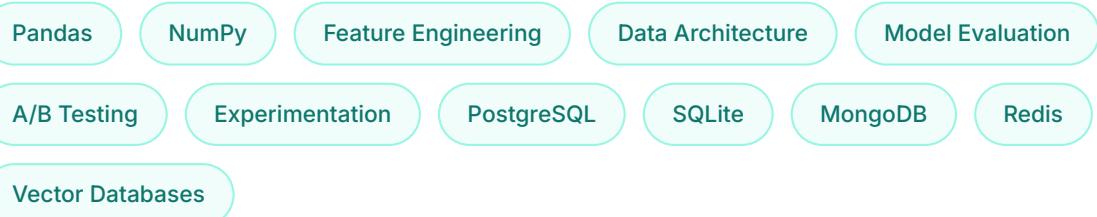
Performance Profiling



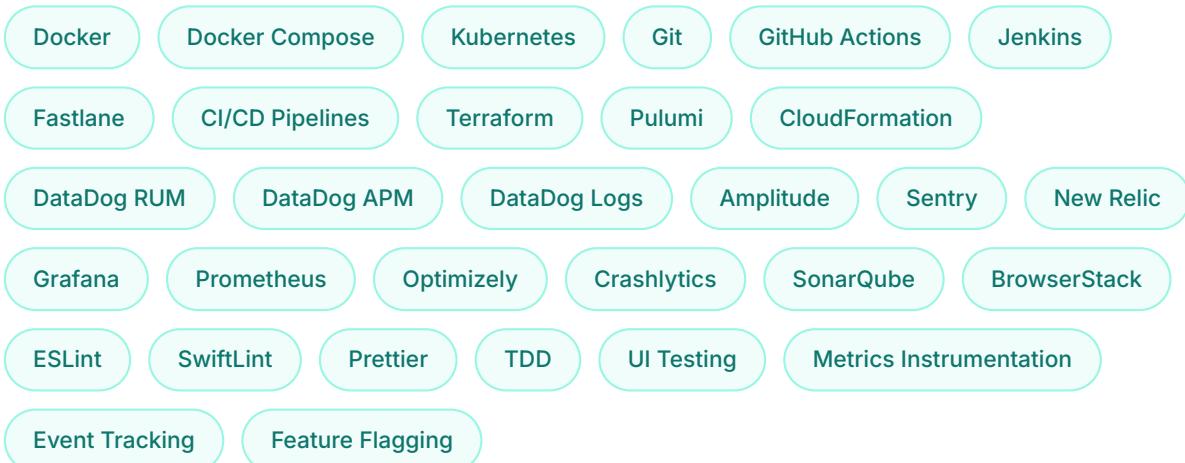
## Cloud Platforms & Infrastructure



## Data Science & Analytics



## DevOps & Observability





## Automation & Integration

MCP Server Development

AI Workflow Automation

n8n

Playwright

Puppeteer

Selenium

BeautifulSoup

FireCrawl

Webhooks

API Integration

Business Process Automation



## Design & Generative Tools

Figma

Sketch

Adobe XD

Photoshop

Automatic1111

OpenWebUI

FFmpeg

Lottie

Audio/Visual Generation



## Collaboration & Project Management

Agile

Scrum

Kanban

Jira

Linear

Confluence

Notion

Slack

Microsoft Teams

Technical Documentation

Architecture Decision Records

Runbooks