

# Suryachalam V M

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## PROFILE

Full-Stack and Product Engineer with hands-on production experience building scalable hybrid platforms, real-time systems, and offline-first mobile applications. Currently interning at SOCIO (startup-grade campus event platform) across the full stack — from Valkey caching and push notification infrastructure to native Android (Capacitor) and PWA systems. Pursuing BSc Computer Science & Mathematics at CHRIST University.

## EDUCATION

**Christ University, Bengaluru** 2025 – 2029  
*BSc Computer Science and Mathematics*  
Coursework: Data Structures & Algorithms, Graph Theory, Linear Algebra, Discrete Mathematics, OOP, Database Systems

## EXPERIENCE

**Product Engineering Intern** Apr 2026 – Present  
SOCIO – Campus Event Platform, CHRIST Incubation and Consultancy Foundation (CICF)

- Implemented a Valkey (Redis-compatible) caching layer for session management, notification queuing, real-time attendance counters, and PostgreSQL load reduction
- Built push notification infrastructure with OneSignal, FCM, Web Push/VAPID, and Service Workers for simultaneous PWA and Native Android delivery
- Developed an offline-first QR scanner using IndexedDB/Dexie.js with background sync, cooldown-based duplicate prevention, and conflict resolution
- Shipped across web, PWA, and Native Android (Capacitor) simultaneously at 50+ hrs/week using agile sprint workflows

## PROJECTS

**SOCIO V2 – Campus Event & Operations Platform** [socio.christuniversity.in](https://socio.christuniversity.in)

- Monorepo (Next.js 15 client + Express 5 API, Supabase Auth/PostgreSQL) with automated QR ticketing, attendance tracking, and 9+ role-gated operational workflows (HOD, Dean, CFO, Volunteer, Catering)
- Implemented real-time analytical dashboards using Recharts and secure JWT session hydration on the server side

**SOCIO Mobile** [app.withsocio.com](https://app.withsocio.com)

- Next.js 16 + Capacitor hybrid app (22 routes) spanning student portals, volunteer dashboards, offline ticket caching via IndexedDB, WebRTC QR scanner, OneSignal push, and native camera/torch plugins
- Implemented shake-to-scan accelerometer bindings and push notifications via VAPID and OneSignal

**FacultyApp – Institutional Workflow Management** [github.com/sgk18/Facultyapp](https://github.com/sgk18/Facultyapp)

- Full-stack platform (Flutter + Riverpod/GoRouter, Next.js, Prisma, Supabase) with JWT auth, Google OAuth, Gmail/Calendar API, FCM push, Resend email, and role-based ADMIN/HOD/FACULTY access control
- Integrated Google Calendar/Gmail APIs, FCM push alerts, Resend email notifications, and OAuth

**Centre for Peace Praxis** [sgk18.github.io/Cpp](https://sgk18.github.io/Cpp)

- Developed the official academic portal using HTML5, CSS3, and JavaScript, incorporating custom animations, cross-device responsiveness, and static PWA manifest support
- Optimized mobile responsiveness and page performance to achieve high-performance auditing scores

## TECHNICAL SKILLS

- **Languages:** TypeScript, JavaScript, Python, Java, Dart, SQL, PL/SQL, C++
- **Frontend & Mobile:** React, Next.js, Flutter, Capacitor, Tailwind CSS, PWA, Service Workers
- **Backend & Infra:** Node.js, Express, PostgreSQL, Oracle Database, Supabase, Prisma, MongoDB, Valkey, MySQL HeatWave, Docker, OCI
- **Integrations & Tools:** CI/CD, FCM, OneSignal, Google OAuth, Gmail API, Resend, Git, Vercel, Figma

## ACHIEVEMENTS & CERTIFICATIONS

- **Oracle Data Platform 2025 Foundations Associate** – Oracle University (ID: 328494602OCI25DCFA)
- **Runner-Up** – Frontend Frenzy, Xactitude IT Fest 2026, Kristu Jayanti University
- **1st Place** – Mathematics Premier League (MPL), SEQUENCE 2026, CHRIST University
- **3rd Prize** – National Science Day Exhibition, School of Sciences, CHRIST University
- **Finisher** – 24-Hour Solo Hackathon, CHRIST × Pod.ai (2026); Participant – YUGASTR Hackathon, Ramaiah
- **Certifications:** Graph Theory (CHRIST) • HackerRank Python Basic • HackerRank SQL Basic • C Programming (Infosys Springboard) • AI Prompt Engineering (Microsoft)