

SHUBHAM KUMAR GUPTA

@ gptshubham595@gmail.com

📞 +91 620 455 3564

📍 Bangalore, India

👤 linkedin.com/in/shubhamguptaggps

EXPERIENCE

Senior Mobile Developer

Oracle

📅 Oct 2025 – Ongoing

📍 Bangalore, IN

- Architected state machine-based orchestration system managing 5+ parallel workflows. Implemented WebSocket audio streaming with chunked uploads, retry logic, and background processing handling 100+ concurrent packets.
- Engineered audio recording system using Oboe NDK with noise suppression, echo cancellation, and biquadratic filtering, reducing audio latency by 40%.
- Built 20+ screens using Jetpack Compose with MVVM pattern. Implemented security hardening reducing APK size from 57MB to 46MB (19%).
- Established CI/CD pipeline with BrowserStack and Jenkins with 95% CoCo.
- Technologies: Kotlin, Java, Jetpack Compose, MVVM, Clean Architecture, Hilt, Coroutines, Flow, WebSocket, Oboe NDK, WorkManager, RoomDB, Jenkins, ProGuard, System Design

Software Development Engineer (Android)

OLA Electric

📅 July 2022 – Oct 2025

📍 Bangalore, IN

- Worked the development of the Proximity feature for scooters. Devised formulations that enhanced proximity success rate from 26% to 98%, solving edge cases. Contributed to the official AltBeacon Android library.
- Developed an optimized event sequencing, throttling, and synchronized triggering, improving efficiency, and reducing event monitoring costs by 5%.
- Enhanced connection and data transmission stability over Bluetooth (BLE).
- Integrated OLA Maps SDK for real-time scooter tracking and dynamic UI for Refer & Earn, increasing user engagement by 20% and conversions by 15%.
- Developed Megaphone (PATENT) feature using real-time audio processing, vocal & phase shifting, noise reduction, echo canceling via Android NDK.
- Implemented Ride stats feature using Google AR Core, with 3D badges.
- Worked on Concert Mode sharing media over Wi-Fi using NSD and socket.
- Worked over Notification Center feature to process & render notifications.
- Led the re-architecture of the application, focusing on Koin to Hilt migration & implemented KtLint and Benchmarking reducing loading time from 12s to 7s.
- Techstack: Java, Kotlin, Clean Architecture, MVVM, Notification, Retrofit, Socket, Glide, Kotlin DSL, Koin, Hilt, Coroutines, Flows, Channels, RoomDB, Retrofit, ExoPlayer, Jetpack Compose, DataStore, & Android SDK.

Research Intern

UiT The Arctic University of Norway

📅 April 2021 – July 2021

📍 Tromso, NOR

- Developed algorithms for acoustic microscopy utilizing LabView and MATLAB, resulting in a 40% reduction in scanning time for biological samples.
- Worked on the synthetic aperture focusing and tilt correction algorithms of 4D time-series scanned objects using ultrasonic.

PUBLICATIONS

AutoSAFT: Autofocusing for extended depth of imaging in acoustic microscopy

Journal of Microscopy

📅 2025

Block-matching and 3D filtering based denoising of point contact excitation

Applied Acoustics Journal

📅 2024

Image denoising in acoustic microscopy using block-matching and 4D filter

Nature Scientific Journal

📅 2023

Automated tilt compensation in acoustic microscopy

Journal of Microscopy

📅 2022

EDUCATION

Indian Institute of Technology,
Guwahati

Bachelor of Technology

📅 2018 – 2022

📍 Guwahati

- Thesis: Non-Invasive point of care ECG signal analytics for cardiac diseases.
- CPI: 7.76/10.00

PROJECTS

BOSCH Route Optimization (Inter IIT Gold)

8th Inter IIT Tech-Meet 🌐 Youtube

- Implemented route optimization algorithms to schedule buses depending on constraints such as time window, fuel, operational cost, and traffic simulation.
- Technologies used Django, Google Maps SDK, Tabu Search, Genetic Algorithm, and Dijkstra's Algorithm.

Vote4US (Android, Blockchain, Top 20 Team)

Microsoft Hackathon 🌐 Github

- Developed a secure, anonymous online voting platform over blockchain using Azure smartcontract, solving issues like a single phone in a family, adhaar, biometric authentication, random 3-day time slot.

COWIN Slot Booking Extension (9L Hits)

Real-Life Problem Solving 🌐 Github

- Worked on extension for booking vaccine slots using autofill & captcha solver.
- Used Ads service as a business model, converted 40+ customers, views counter, live status viewer, admin panel & data handling via Google Sheets, PHP, HTML.

ACHIEVEMENTS

- CodeChef September Long Challenge'21: Global Rank 69.
- TechGig Codegladiator'21: Finals Rank 24 out of 3.16 Lakh students.
- Google Hash Code'18: Secured 19th position at the National level.
- Google Codejam'19: Qualified 2 rounds.
- Bug Bounty Hall of Fame: Found vulnerabilities on IITG, Google, Sirv.com, Esty, Hoorn.nl, Cert.europa.eu, Nokia, Microsoft, Pega, Castoredc, LoginRadius, Gusto, CompanyHub, Dell, Indeed, 23andMe, Fitbit, Prezi.
- Opensource: Worked with Kiwix, Appwrite.io, Fossasia, PublicLabs
- HackerEarth Technoflux Hackathon'19: Secured 3rd rank.