

Priyanshu Rauth

India • +91 7003992313 • raut.priyanshu30@gmail.com

GitHub: Priyanshu Rauth • LinkedIn: Priyanshu Rauth

PROFESSIONAL SUMMARY

Performance-driven Android Developer with 5+ years of experience shipping production-grade applications. Proven track record of maintaining a 99.5% crash-free rate for 10,000+ users. Expert in Kotlin and Jetpack libraries, with a deep focus on memory optimization and Google Play policy compliance. Published fiction author with a secondary focus on high-quality technical documentation.

TECHNICAL SKILLS

- **Languages:** Kotlin (Expert), Java (Proficient), Python, C#, SQL, XML.
- **Frameworks & Architecture:** MVVM, Clean Architecture, Jetpack (Compose, Room, WorkManager, Flow, Hilt).
- **Specialized APIs:** Custom Views, Canvas 2D/3D, Firebase (Realtime DB, Crashlytics, Analytics), Networking (Retrofit/OkHttp).
- **DevOps & Tools:** Git, Play Console Management, Android Profiler, Memory Leak Analysis.

PROFESSIONAL EXPERIENCE

Founder & Android Engineer

2020–Present

Raut Masters (MSME Studio)

- Engineered a suite of production apps achieving 10,000+ installs and a 4.4+ average rating on Google Play.
- Optimized cold-start latency by 40% on low-end devices by implementing custom lifecycle management and lazy-initialization patterns.
- Reduced average APK size by 72% (18 MB to 5 MB) through aggressive resource shrinking, ProGuard/R8 rules, and feature modularization.
- Spearheaded a rigorous testing and crash-reporting pipeline using Firebase Crashlytics, sustaining a 99.5% crash-free session rate.
- Navigated complex Google Play policy transitions, ensuring 100% compliance with Data Safety and Target SDK requirements across all live releases.

OPEN SOURCE & SYSTEMS ENGINEERING

RRL Programming Language

[GitHub]

- Architected a custom, high-level programming language featuring OOP support (inheritance, classes), function scoping, and a dedicated REPL.
- Developed a hardware-abstraction layer for Arduino and Raspberry Pi GPIO integration via serial/C bindings.
- Implemented a custom lexer, parser, and execution engine with safety constraints (1M iteration limits) and a standalone CLI/executable (.exe) compiler.

NPGuard (NumPy Memory Observability Tool)

1.5K+ Downloads (PyPI)

- Engineered a memory-tracing diagnostic tool to identify hidden temporary array allocations and C-level memory spikes in NumPy expressions.
- Developed specialized signals for Parallel Allocation Detection and Dtype Promotion analysis to prevent OOM errors in data pipelines.
- Distributed via PyPI with context manager and decorator APIs, used by 1,500+ developers for second-pass memory optimization.

PyfDev (My First Language)

4K+ Downloads (PyPI)

- Authored an experimental programming language as an early exploration of language design concepts, reaching 4,000+ PyPI installs.

KEY ANDROID PROJECTS

Master Calculator Pro (5,000+ Installs)

[Live Link]

- Architected a highly extensible computation engine using the Factory Pattern, enabling the scalable addition of 20+ specialized mathematical modules.
- Implemented an AI-assisted math helper using Jetpack Compose, supporting natural-language mathematical queries and real-time calculations through a state-driven reactive UI.
- Integrated interactive 3D graph visualizations using a native Android WebView, enabling advanced mathematical plotting while maintaining smooth UI performance.
- Deployed a real-time community discussion feature using Firebase Realtime Database, handling concurrent data synchronization for a global user base.

BharNET Browser (1.8K+ Installs)

[Live Link]

- Built a privacy-focused lightweight browser with restricted third-party cookies and customizable site-blocking controls by domain name or URL.

- Implemented an optional proxy-based privacy mode to reduce tracking exposure without the performance overhead of a full VPN solution.
- Integrated an ad and content filtering system that blocks adult websites and significantly reduces intrusive advertisements.
- Optimized WebView threading and background execution behavior, improving responsiveness and reducing UI jank on entry-level devices.

Doodle Magic for Toddlers

- Customized a high-performance drawing engine using the Android Canvas API, supporting glitter effects and multi-touch stickers without frame drops.

EDUCATION

Bachelor of Technology: Computer Science & Engineering	2024–2028 (Expected)
<i>Meghnad Saha Institute of Technology (MSIT)</i>	<i>Kolkata, India</i>

LEADERSHIP & HONORS

- **Development-Lead — Hackerspace:** Mentoring 50+ students in Android development fundamentals and clean code practices.
- **Workshop Lead:** Organized and delivered a comprehensive Android Development Workshop for 60+ students, covering UI design, API integration, and debugging techniques.
- **Smart India Hackathon (SIH):** Selected as a two-time internal finalist (2024, 2025) for proposing scalable mobile solutions.
- **Competitive Programming:** 1483 rating on LeetCode; 200+ problems solved in Java/Kotlin.