Arpan Abhishek

Software Engineer

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PROFILE

Highly skilled software engineer with over a year of professional experience designing, developing, and optimizing systems across diverse platforms. Proven expertise in building scalable applications, enhancing developer velocity, and improving code quality through robust design and testing practices. Adept at working with cutting-edge technologies, including Android OS, distributed systems, and developer tooling. Passionate about solving complex technical challenges and driving innovation.

PROFESSIONAL EXPERIENCE

Associate Software Engineer, *Light & Wonder* ☑

Jul 2023 – present | Bangalore, India

- Designed and implemented an H.264 encoding module for streaming screen frames over RTSP, enabling real-time data visualization.
- Built a secure, end-to-end Android OS development pipeline, incorporating dynamic display resolution detection in AOSP's HAL layer.
- Developed a C++ library for APK decryption, improving installation security for trusted applications.
- Created a Kotlin-based Device Owner application for interactive signage content control in casino environments.
- Optimized firmware upgrades using libusb in C++, reducing upgrade times by 70%.

Software Engineering Intern, *Light & Wonder* □

Feb 2023 – Jun 2023 | Bangalore, India

- Spearheaded the migration of a legacy Angular codebase to React, enhancing maintainability and performance.
- Developed automated test cases in FitNesse and C# to improve test coverage and ensure system reliability.

Software Engineering Intern, *Pupilfirst*

Apr 2022 - Oct 2022

- Upgraded GraphQL-PPX to support ARM architecture, expanding compatibility for broader deployment.
- Improved the admin panel UX using ReScript React, enhancing usability for stakeholders.
- Automated data deletion workflows in Ruby on Rails, reducing processing times by 65%.

OPEN SOURCE CONTRIBUTION

Open Health Care Network, Full Stack Developer

Apr 2021 – Apr 2022

- Designed and deployed a React and Django-based real-time monitoring dashboard for a TeleICU system, reducing response times for critical incidents by 50%.
- Led a nationwide TeleICU system deployment with a 98% success rate in camera configuration, showcasing strong project execution skills.

MLH Fellowship, Open Source Fellow

Sep 2021 - Dec 2021

- Enhanced test coverage for Facebook Open Source's Pysa project from 55% to 68%, improving tool reliability and developer productivity.
- Built a user-friendly front-end for the Pysa Playground using React, enhancing accessibility for security researchers.

PROJECTS

Blockchain-based Medical Supply Chain Application

- Designed and implemented a blockchain-based solution to ensure regulatory compliance and secure medical supply chain management.
- Built role-specific dashboards for stakeholders, improving usability and data integrity.

A SaAS for Security Testing

• Developed a tool to automate penetration testing tasks, reducing manual effort by 75% and improving test completion rates by 50%.

Sales Contests Platform

 Created a MERN stack application to manage organizational sales contests, boosting team engagement and motivation.

EDUCATION

Bachelor of Engineering, CMR Institute of Technology

Aug 2019 - May 2023 | Bangalore, India

SKILLS

Programming Languages — C++, Python, JavaScript, Kotlin, TypeScript, Go, C#, SQL

Software Design — OOP, LLD, Data Structures, Algorithms, Multithreading, Concurrency, Microservices

 $\textbf{Tools}-\mathsf{Git},\mathsf{JIRA},\mathsf{FitNesse},\mathsf{AWS},\mathsf{Azure}$

Testing — Unit Testing, TDD, Integration Testing, Automation Frameworks

Misc — AOSP Development, Android Security, Blockchain