AMEY SANTOSH RANE

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SUMMARY

Software Engineer with hands-on experience **designing, developing, and testing** secure **web and mobile apps** in healthcare. **Proficient** in testing native **Android/iOS apps** and developing with **React, Java, and .NET**. Passionate about **LLMs, AI**, and building **patient-centered solutions**.

EDUCATION

Master of Science (Computer Science), *Binghamton University, State University of New York.*   *AUG 2022 – (Graduated) MAY 2025*
- **Courses**: Design Patterns, Cloud Computing, Design and Analysis of Algorithms, Computer Security, Computer Architecture and Organization. Object-oriented design *GPA:- 3.5/4*

Bachelor of Engineering (Electronics N Telecommunication), *University of Mumbai*   *AUG 2016 – (Graduated) OCT 2020*
- *Courses*: Software Programming, Java, Data Structures and Algorithms, ARM, x86, Databases, Computer Networks. *GPA:- 3.2/4*

TECHNICAL SKILLS

- **Languages:** Python, Java, JavaScript, C, C#, Php, Gherkin, HTML, CSS
- **Web/ Mobile App:** Django, ASP.NET, React.js, React Native, Next.js (basic), Laravel, Ajax/ jQuery, Postman, MVC, XML, JSON,
- **Platforms/Tools:** MacOS**,** Windows**,** Linux OS, Docker**,** AWS (EC2, S3), IIS Server(basic), ADB (Android Debug Bridge)
- **Database/ HealthCare standards:** SQL (MySQL, MS-SQL), HL7/ Mirt Connect (Basic), IEC 62304 (Basic), ISO 13485 (Basic)
- **Source Control/ Networking:** Git, Bitbucket, GitHub, CI/ CD/ CT, OSI Layers, TCP/IP
- **Editor / Tracking:** IntelliJ IDEA, Visual Studio, VS Code, JIRA, Confluence, Slack, Android Studio, WordPress CMS
- **Build Tools/ package manager:** Apache Ant, Make / Make file, npm, pip, nuget, composer, Homebrew, conda
- **Testing**: TDD/BDD, Appium, IBM Engineering Lifecycle Management (ELM), Selenium, UIAutomator2, Cucumber
- **Certification:** AWS Certified Cloud Practitioner**,** Python-Django Full Web Dev

PROFESSIONAL EXPERIENCE

Abbott Diabetes Care, Software Engineer in Test, Alameda, California, USA   *MAY 2023 - AUG 2023*
*Skills***:** Scripting | UI/API Automation Testing | Debugging | Java | Appium | Bitbucket | CI/CD/CT | Cucumber | Gherkin | Android | IOS
- Built automated UI test scripts for user actions on **Android and iOS app for Abbott's CGM (glucose monitoring) products**. Assisted to a **5%** reduction in software defects and a **5%** increase in user experience
- Collaborated with **XFN teams**, including **developers, product managers, and quality assurance engineers**, to identify requirements, discuss and align on software-design and to rollout changes into production within project timelines
- Utilized **technologies such as Java, Appium, Cucumber to test interface of the native app**. Planned extensive documentation to facilitate seamless adoption and extension of the software by team members

Techno Win IT Infra Pvt Ltd, Software Engineer, Mumbai, Maharashtra, India   *OCT 2021 – MAY 2022*
*Skills***:** Laravel | ASP.NET | C# | Java | React.js | JavaScript | Ajax | PHP | MySQL |Azure | HTML5 |CSS | MVC | Python
- Contributed as both an **SDE and SDET in an early-stage startup, participated to development, testing, go to market and after sales support of web apps and solutions for large service companies and educational institutions**
- Developed internal tools for HR and education clients, enabling **data ingestion, validation, and Excel-based transformations**
- Provided **technical support to customers, resolved post-deployment issues, supporting the rollout** of software products

PROJECTS

Health Monitoring & Safety System for Alzheimer's Patients, *React Native | Firebase | Raspberry Pi | GPS*
- Built a cross-platform mobile app that delivers real-time health event alerts, reminders, and escalations for Alzheimer's patients.
- Integrated IoT sensors (Raspberry Pi) for event detection and real-time data sync with Firebase.
- Published in IRJET (2020) demonstrating healthcare innovation in patient safety.

Product Support & Automation — Abbott Diabetes Care, *Java | Appium | ADB | Android/iOS | CI/CD*
- Developed automation scripts for native Android/iOS CGM apps, driving defect reduction and improved user trust.
- Worked closely with development, QA, and PM teams to align requirements, protect sensitive data, and deploy secure releases in a regulated FDA environment.

HR Management Service, *React.js | Laravel | Next.js | Azure | MySQL*
- Collaborated with HR clients to gather requirements, design workflows, and deliver a custom HR SaaS platform, including secure Excel uploads and EPPlus-based data operations.
- Provided post-deployment support, resolved client queries, and iteratively improved the app, boosting request processing by 10%.

Conversational AI Chatbot -Ongoing, Java | Python | LangChain | OpenAI API | React.js | Pinecone | PostgreSQL
- Designing and building an LLM-powered support chatbot with contextual memory and semantic search (RAG), exploring its potential in healthcare applications for patient information and daily health management.
- Developing backend microservices in Spring Boot, integrating React chat UI, and deploying on AWS with Pinecone vector search and PostgreSQL for chat history management.

Extracurricular Activities & Leadership

Publication: Health Monitoring/Security System for Alzheimer's Patient (IRJET), Volume 7, Issue 05, May 2020)