

Bhanu Pratap Rana

Software Engineer (Frontend, React)

Kai Tak, Hong Kong SAR • bprana@connect.ust.hk • +852 97526759 • bprana.pages.dev • GitHub • LinkedIn

PROFESSIONAL EXPERIENCE

USthing (HKUST)

Oct 2026 – Present

Lead App Developer, USthing Club (iOS, Android)

- Shipping iOS and Android features on **USthing**, HKUST's all-in-one campus app relied on daily by **thousands of students (10K+ installs, since 2015)**.

Sugar.fit

Jun 2024 – Jul 2026

Senior Software Engineer

- **Owned** end-to-end modernization of an **8-year-old healthcare platform** serving **100K+ premium users**.
- Built REST routes in the **Java Spring Boot API gateway** carrying all traffic to **10+ microservices** on **Kubernetes**.
- Cut app launch time by **52%** (lazy loading, Hermes engine) and raised stability to **99.9%+ crash-free sessions**.

Unacademy

Jun 2023 – Jun 2024

Senior Software Engineer

- Designed automated CI/CD (continuous integration and delivery) pipelines with Bitrise and Fastlane, cutting release cycles from days to **~2 hours** for apps serving **50M+ learners**.
- Built an internal app platform that let Unacademy Group teams configure and ship their mobile apps on their own.

Avalon Meta (Graphy)

May 2021 – Jun 2023

Software Engineer; Scenes: white-label community platform (web, iOS, Android)

- Built the white-labeled React and Next.js web app for Scenes (a “white-label Discord”), helping scale it to **60+ online communities** and **\$1M+ ARR**.
- Built real-time WebSocket features: live audio and video rooms, group chat, forums, search and profiles.
- Built push notification infrastructure that helped lift **Daily Active Users by 67%**.
- Redesigned onboarding, lifting install-to-sign-up conversion to **85%**.

SELECTED PROJECTS

DuraLedger – Multi-Currency Wallet Ledger

github.com/BhanuRana/duraledger

Java 21 • Spring Boot • PostgreSQL • jOOQ • Flyway • Pub/Sub • GCP Cloud Run • Kubernetes

- Built a live double-entry ledger with idempotent transfers and FX: **20 concurrent retries moved money exactly once** and row locks blocked every overdraft.

UST GradPath – Course Prerequisite Graph App

github.com/BhanuRana/ust-gradpath

React Native 0.83 (New Architecture) • Expo 55 • TypeScript • Reanimated 4 • MMKV • Jest • Maestro

- Turned HKUST's free-text prerequisites for **4,030 courses** into one graph, with a precedence parser, cycle-safe traversal and shortest-path planning to any course.
- Moved heavy work to build time, shrinking a **28 MB** dataset to a **574 KB** startup index plus lazily loaded department chunks, fully offline.
- Built a pan-and-zoom map (gestures, SVG), covered by **69 Jest tests** and **7 Maestro E2E flows** (iOS, Android) in CI; released an Android APK.

TECHNICAL SKILLS

Languages: TypeScript • JavaScript • HTML • CSS • Java • SQL

Frontend: React • Next.js • Redux • React Native • Expo

Real-time & APIs: WebSockets • Server-Sent Events • REST APIs • Node.js • Spring Boot • PostgreSQL

Testing & Delivery: Jest • Maestro (E2E) • GitHub Actions • CI/CD

EDUCATION

MSc Information Technology, Hong Kong University of Science and Technology (HKUST)

Aug 2026 – Jul 2027

Lead App Developer, USthing Club: HKUST's all-in-one student app, relied on daily by thousands of students

Bachelor of Engineering (Honours), Computer Science, Chandigarh University

2017 – 2021

IBM Honours Specialization in Information Security

Awards: HKUST International Scholarship • Engineer of the Quarter, Sugar.fit