Iqbal Bahar Prince

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SKILLS

Voice AI: Real-time STT, LLM, and TTS pipelines, Twilio Programmable Voice (Media Streams, Conference, Client SDK), Google Cloud Speech-to-Text and Text-to-Speech, ElevenLabs, Gemini Live API, LLM function calling, mu-law audio
Languages and Data: Java, TypeScript, JavaScript, Python, SQL, PostgreSQL, Flyway, JSONB, indexing, transactions
Backend: Spring Boot, Spring Security, Hibernate, REST APIs, webhooks, WebSockets, async jobs, Django
Frontend and Mobile: Next.js, React, React Native (Expo), Flutter, Thymeleaf, htmx
Cloud and DevOps: GCP (Cloud Run, Cloud SQL, Secret Manager, Cloud Build), Docker, CI/CD, Cloudflare, Linux, Stripe

EXPERIENCE

Freelance Software Engineer, Self-employed – Dhaka, Bangladesh (Remote) Oct 2026 – Present

- Delivered a bilingual recruitment platform for Milad International, an overseas employment agency, under a fixed-scope contract, with job and visa listings, document uploads, and an 8-stage application workflow
- Protected migrant-worker identity data by encrypting passport and NID numbers at rest and serving uploaded documents only behind server-side authorization checks
- Deployed the stack with Docker on a Linux VPS behind Cloudflare Tunnel, with nightly database backups

Technologies: *Java 21, Spring Boot 4, PostgreSQL, Flyway, Thymeleaf, htmx, Bootstrap, Docker, Cloudflare Tunnel*

Founding Engineer, Zaza AI (ZazaVoice) – Dhaka, Bangladesh (Remote) Oct 2025 – Sept 2026

- Built a multi-tenant B2B voice AI platform where businesses deploy AI agents for inbound support, appointment booking, and outbound campaigns, taking it live at zazavoice.com as the sole engineer
- Developed a streaming STT, LLM, and TTS pipeline over Twilio bidirectional Media Streams, piping 8 kHz mu-law audio through Google streaming STT, Gemini, and ElevenLabs, with barge-in on caller interruption
- Built a second, lower-latency speech-to-speech pipeline on the Gemini Live API, resampling 8 kHz mu-law to and from 16 and 24 kHz PCM in real time
- Implemented LLM function calling during live calls for availability checks, appointment booking with a double-booking guard, contact capture, and voicemail detection
- Replaced Twilio answering-machine detection with a listen-first outbound gate that greets after 1.2 s of silence or a human hello, hangs up on voicemail and IVR prompts, and ends calls after 3 unanswered AI turns
- Designed the campaign dialer with multi-phone retry passes, TCPA calling-hour limits, and per-lead prompt variables, and fixed a retry bug that let 1 lead be dialed dozens of times
- Built human handoff over Twilio Conference with AI or voicemail fallback, plus a React Native mobile softphone
- Resolved production race conditions in webhook handling, including a webhook versus dispatcher insert race fixed with a unique constraint, idempotent Stripe events, and atomic SQL wallet debits

Technologies: *Java 21, Spring Boot 3, PostgreSQL, WebSockets, Twilio, Google Cloud STT and TTS, Gemini Live, ElevenLabs, Stripe, Next.js 14, TypeScript, React Native, GCP Cloud Run, Cloud Build*

Undergraduate Researcher, North South University – Dhaka, Bangladesh 2022 – 2023

- Analyzed thermal imaging, PPG, and Doppler data from 40 participants across 4 PEMF therapy configurations
- Cleaned and modeled the data in Python with pandas, NumPy, SciPy, and Matplotlib, fitting Stefan-Boltzmann heat-rate trends that showed configuration-dependent effects
- Wrote the research report and thesis with faculty advisor Dr. Zaid Bin Mahbub; journal manuscript in preparation

Freelance Designer and Mobile Developer, Self-employed – Remote 2018 – 2023

- Built a Flutter app for a German Upwork client (rated 4.6 of 5), and delivered 8 graphic design orders and 1 website for international clients, with repeat orders and mostly 5-star reviews

EDUCATION

B.Sc. in Computer Science and Engineering, North South University 2023