Afshin Nahian Tripto

Founder · Product Engineer · AI Engineer · Full Stack

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Product-minded engineer and founder with more than half a decade of experience, working remotely with cross-cultural teams. I own products end to end: I sit with the people who will use the software, cut the problem down to what matters, build it, deploy it, and keep it healthy after launch with monitoring, backups and security patches. I've been the sole engineer on platforms that whole organizations run on, the main author of the AI engines behind two SaaS products, and the founder of a study platform that has served students since 2018. I build AI-native software that both people and AI agents can use, through interfaces, APIs and MCP servers. In AI work I care about cost and speed as much as quality: routing each task to the right model, caching, and keeping a person in the loop where it matters.

SKILLS

Product	Discovery with non-technical stakeholders, turning specs into phased rollouts, replacing spreadsheet and chat workflows, production support
AI engineering	AI agents, RAG, agent memory, context engineering, MCP servers, model routing and response caching for cost and latency, OpenAI / Claude / Gemini / Mistral, ChromaDB, LoRA fine-tuning
Engineering	TypeScript, Python, Go, Rust (Tauri) · Next.js 16, React 19, React Native · Node.js, Bun, Express, FastAPI · BullMQ, SSE, WebSockets
Data & infra	PostgreSQL, Drizzle, Redis, MySQL · Railway, Vercel, Cloudflare (R2, D1, Pages, Access), AWS, Docker, GitHub Actions · Stripe, Resend, better-auth
Automation	Slack apps and bots, n8n workflows, Google Apps Script, GitHub Actions, scheduled ETL jobs
Operations	Deployments, monitoring and alerting, backup and restore drills, dependency and security patching, runbooks

EXPERIENCE

Senior Full Stack Engineer · Provision Capital (Texas, USA · remote)

Apr 2024 – Present

Product engineer for a real estate investment firm and the organizations it builds for. I scope each problem with the team that has it, then design, build, ship, host and support the software.

Qalam Institute · Qalam Seminary ONE, Qalam Hub, Qalam Facility, Qalam Processor · sole engineer

- Built **Qalam Seminary ONE**, the seminary's unified learning platform for attendance, session materials, grades and assessments. It syncs with Canvas but owns all core data, so retiring Canvas later is a rollout decision, not a migration.
- Designed the app family around one identity: passwordless, invite-only sign-in (email OTP and magic link) with role-based access, one Postgres database with a schema per app, and an audit log.
- Built **Qalam Processor**, a shared API and queue engine that every Qalam app uses for notification fan-out, real-time SSE updates, transactional email and scheduled jobs.
- **Qalam Hub** gives nine teams one place for tickets and tasks, each linked to the program or event it serves. **Qalam Facility** moved tickets, room bookings, spaces and inventory out of ClickUp, Slack, WhatsApp and email.

RRH OS · operating system for RentReady Homes · sole engineer

- Turned a written Phase 0 specification into a working platform: Next.js 16 staff console, Postgres schema with region-based access and an editable role grid, Redis, Cloudflare R2 storage and an Express + BullMQ processor.
- Modeled the real ownership structure (properties, LLCs, parent groups, funds, third-party owners) and made every change an append-only, dated record so operations can audit who changed what and when.

Investor relations platform · Provision One

- Hardened sign-in and data protection: passkeys, hashed one-time codes, idle and absolute session limits, and sign-up that fails closed when its setting is missing.
- Wrote backup and restore runbooks (point-in-time recovery, snapshots, offsite dumps, a monthly drill) and set up grouped dependency updates in CI.
- Worked on the processor service: CSV lead import with progress tracking, rate-limited bulk email and scheduled engagement recomputes.

Internal automation

- Built Slack bots and apps for operations teams, including an hourly monitor that flags security incidents at the company's AI providers and SaaS vendors.
- Built and maintained n8n workflows and Google Apps Script automations for lead capture, reporting, data syncs and move-out processing, with a daily job that backs up every workflow.

Marketing sites and lead capture

- Built RentReady Homes landing pages that read live rent from AppFolio over OAuth and send leads straight into AppFolio and a tracking sheet, with name cleanup so records match.
- Ported the Provision Capital website to Next.js and built the SynTech Consulting website, and kept them patched (for example, upgrading Next.js the day critical advisories were published).

Client work through SynTech Consulting

- Built a Property Distress Analyzer for an acquisitions team: uploads CRM exports and uses Claude vision to flag distress in listing photos, on Cloudflare Pages, D1 and Access.

- Deployed and branded SynTech Suite, a self-hosted CRM and project manager with no per-seat fees, plus its documentation site.
- Designed a custom mobile app concept for a multi-location coffee company, and built PB Inventory, which replaced their shared spreadsheet with a count, order, receive and reconcile flow across locations.

Earlier products · Muslim Spaces, NasIQ, Air Allergen, Morcel, Habbah

- Muslim Spaces: web app and App Store iOS app, with Stripe payments and donations across 500+ community organizations. NasIQ: AI IT support with instant triage and Slack + Jira escalation to a person.
- Air Allergen: lab information system and booking site with Stripe and Google Calendar scheduling. Morcel and Habbah: Stripe subscriptions, Google SSO and transactional email.

Software Engineer · REDQ Technologies Ltd. (Dhaka) — Apr 2024 – Present

TypeScript, Next.js 16, Python, FastAPI, ChromaDB, Redis, BullMQ, PostgreSQL, OpenAI Agents SDK

- Main author of the TrueBeep AI Engine: a copilot agent with RAG over campaign results and an auto-reply agent for multi-channel inboxes.
- Main author of PROA Brain for a multi-tenant ERP: copilot with short-term (Redis) and long-term (ChromaDB) memory, document search and Mistral OCR.
- Kept AI costs and latency down by routing each task to the cheapest model that handles it well and caching repeated work.
- Integrated 7+ platforms (Meta, Instagram, WhatsApp, TikTok, Canva, Unsplash) and built Socket.IO collaboration that cut perceived latency by about 40%.

Frontend Engineer (part-time) · BRAC, SDP program — Mar 2023 – May 2025

- Part-time project alongside my full-time roles. Built most of the frontend for a program management platform: role and designation management, project cohorts and branches, donor and area data, and approval flows.

Frontend Developer · Edison Communication Ltd. (Dhaka) — Jun 2023 – Apr 2024

- Built WebManza, a drag-and-drop store builder. Moved storefronts to SSR for SEO and cut redundant network calls by about 40% with RTK Query.

JavaScript Developer · Delivery Hobe (Dhaka) — Oct 2021 – May 2023

- Architected the AdsHobe B2B ads platform frontend from scratch; built the DeliveryHobe storefront and a React Native rider app.

Founder · BUTEX NoteBot — Sep 2018 – Present

Node.js, Bun, Express, PostgreSQL, Drizzle, Redis, Go, React, Flutter, n8n, MCP

- Started a Messenger bot to share lecture notes with classmates and grew it into a study platform: Messenger bot, web app, Android app, CMS and a Go analytics service.
- Built an AI-assisted ingestion pipeline: students submit notes through a form, n8n secures the files, Claude files each note in the right place, and nothing goes live until I review and merge.
- Shipped NoteBot MCP (ai.butexnotebot.com) so students can ask Claude or ChatGPT about official notices, with circuit breakers and cache fallback when the university site is down.

OPEN SOURCE

- **Turbo Reader** · Desktop RSS reader with a Rust core and React shell on Tauri 2; installer under 5 MB, opens in under a second.
- **Porter** · Cross-platform port monitor that shows which process holds a port and stops it in one click.
- **NoteBot MCP** · MCP servers for BUTEX notices and study material, usable from Claude and ChatGPT over OAuth.
- **Shapeshifting Software** · Essay and reference design for apps that adapt from natural-language intent within guardrails.
- **md-viewer-pwa** · Installable, offline-first Markdown viewer.
- **bin-21** · Self-hostable pastebin with no accounts.
- **lo-cli** · Fine-tune LLMs locally with LoRA and QLoRA using sensible defaults. **docset-gen** turns documentation into LLM training datasets.
- **chonkie-pdf** · CLI that splits large PDFs into chunks for RAG pipelines.
- **npm packages:** ts-stats (typed statistics helpers), bang-utils (English to Bengali numerals and dates), simple-messenger-blocks (Messenger chatbot blocks).

EDUCATION

M.S. Computer Science, United International University · CGPA 3.97 — 2025

B.S. Industrial Engineering, Bangladesh University of Textiles · CGPA 3.75 — 2023

CERTIFICATIONS

- **Generative AI Engineering and Fine-Tuning Transformers** · IBM, 2026
- **AI Agents Fundamentals** · Hugging Face, 2025
- **The AI Engineer Path** · Scrimba, 2024
- **Software Architecture Foundations** · LinkedIn Learning, 2024
- **Ethical Hacker** · Cisco, 2023
- **Introduction to SQL** · Simplilearn