

# MAJHARUL ISLAM

Senior Software Engineer — Backend · Distributed Systems · AI Products

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## SUMMARY

Senior backend engineer with seven years shipping Node.js and TypeScript services into regulated environments — Central Bank-licensed payment operators, Buy Now Pay Later platforms with AI-driven credit decisioning, and a finance SaaS platform serving 800+ brands worldwide. I own delivery end to end: architecture, APIs, security, observability, and the reliability details that decide whether a system survives its first real scale event. Most recently I owned the AI systems layer on a live consumer credit product — prompt architecture, structured outputs, grounding guardrails and evaluation.

## EXPERIENCE

### Senior Software Engineer — Moby Money Sdn Bhd

Buy Now Pay Later platform · Remote (Malaysia) · Dec 2023 – Jul 2026

- Owned the AI systems layer on a live product: prompt architecture kept as versioned, reviewable artefacts; model responses constrained to defined schemas and validated at the boundary with retry and fallback paths; grounding checks that traced generated claims back to source records; and a regression set run against prompt and model changes, with sampled outputs scored under human review.
- Built AI-driven credit decisioning engines — an auto-limit engine inferring a starting credit limit from profile signals and credit history at onboarding, and a second for limit-increase applications — removing manual underwriting from both paths.
- Re-architected scheduled jobs (repayment runs, late-fee accruals, statement generation) to be horizontally scalable and idempotent under retries.
- Owned merchant integration end to end: onboarding APIs, checkout SDK contracts, settlement workflows and partner-facing webhooks; built KYC and identity-verification pipelines integrating third-party providers, document checks and risk signals.
- Scaled the Pay Now and Installment payment flows for throughput, fewer failed transactions and tighter reconciliation.

### Senior Software Engineer — HelloPay Ltd.

Central Bank-licensed Payment Service Operator · Remote (Bangladesh) · May 2023 – Nov 2023

- Architected the MVP that earned a Payment Service Operator licence from the Central Bank of Bangladesh, passing the regulator audit at first review — double-entry ledger, KYC and transaction services in NestJS and PostgreSQL, with secure authentication, RBAC and immutable audit trails.
- Owned containerised deployment on DigitalOcean with repeatable build, release and rollback workflows; led a cross-functional Agile team through architecture, planning and production rollout.

### Software Engineer · Lead Developer — Accept Global Ltd.

wholesalecart.com — B2B e-commerce platform · Jul 2021 – Apr 2023

- Led development of wholesalecart.com, winner of the 2022 South Asian Business Excellence Award for Best B2B E-Commerce Website.
- Replatformed the business off Shopify onto a Laravel + React stack, running a phased catalogue, customer and order migration with dual-write cutover — **zero merchant downtime** through the transition.
- Designed versioned REST APIs with idempotency, pagination and rate limiting; automated procurement, order routing, courier booking, invoicing and merchant reporting.
- Set up CI/CD with staging, automated smoke tests and zero-downtime deploys; partnered with data and marketing teams on centralised logging, analytics and reporting pipelines.

### Software Engineer — Asyncus · Freelance Software Developer — Fiverr

Remote · Apr 2020 – Jun 2021 · Jun 2019 – Mar 2020

- Delivered end-to-end backend builds for client projects — REST APIs consumed by React frontends, with full CI/CD coverage — owning architecture, deployment configuration and release pipelines from requirements through production.
- Delivered 15 client projects on Fiverr for international customers, owning pre-sale analysis, scoping and client communication independently under tight SLAs.

## SELECTED PROJECTS

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**Vezmo — multi-tenant finance SaaS** (*Consultant & Technical Lead, from 2024*) — Designed a greenfield platform from a clean sheet, mapping bounded contexts, data ownership and scaling axes before any code, into six independently deployable Node.js/PostgreSQL microservices covering invoicing, payments, contracts, billing, bookkeeping and identity. Built the OAuth2/JWT public API with signed webhook delivery and per-tenant rate limiting; enforced multi-tenant isolation, encryption and RBAC at the data layer; containerised CI/CD with logging, metrics and tracing wired in before first deploy. **800+ brands onboarded at 99.9% release reliability.**

**Onesalemart** — Global dropshipping platform with a 200M+ SKU catalogue: queue-driven bulk ingestion, MongoDB search and pricing layer, circuit-breaker-protected payment and supplier adapters, and an order-routing engine.

**School Management SaaS** — Multi-tenant, role-based platform serving five distinct role dashboards on one shared component library, with tenant-isolated data, RBAC and idempotent billing and attendance jobs.

## EDUCATION

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**Master of Artificial Intelligence & Machine Learning** — Adelaide University, Adelaide SA · Aug 2026 – 2028 (in progress)

**BSc in Computer Science & Engineering** — North South University, Dhaka · 2016 – 2020

## TECHNICAL SKILLS

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**Backend** — Node.js, NestJS, Express, TypeScript, REST APIs, GraphQL, OpenAPI/Swagger, microservices, event-driven architecture

**AI & ML** — LLM API integration, prompt architecture, structured outputs and schema validation, grounding and hallucination guards, evaluation harnesses and regression sets; applied ML with LightGBM, XGBoost, Random Forest and SVM; Python

**Data** — PostgreSQL, MySQL, MongoDB, Redis — schema design, migrations, query tuning, double-entry ledgers

**Cloud & DevOps** — AWS, DigitalOcean, Docker, Linux, nginx/TLS, GitHub Actions, GitLab CI, secrets management, zero-downtime deploys, structured logging, metrics, distributed tracing

**Security & compliance** — OAuth2/JWT, RBAC, OWASP Top 10, rate limiting, audit logging, encryption in transit and at rest, KYC/AML integration, regulator-audited delivery

**Frontend** — React, Next.js, Redux, Tailwind CSS

**Practices** — Domain-driven design, clean architecture, Agile/Scrum, code review, technical documentation and runbooks

## RESEARCH & RECOGNITION

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**Research** — 4 IEEE-indexed publications, 110+ citations in applied machine learning — predictive modelling and ensemble methods. Venues include IEEE CCWC (Las Vegas, 2023) and IEEE conferences in Singapore and Coimbatore (2020).

**Award** — South Asian Business Excellence Award 2022, Best B2B E-Commerce Website (wholesalecart.com, as lead developer).

**Languages** — English (fluent), Bengali (native).