

Tonmoy Talukder

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EXPERIENCE

World Tech

Dhaka, Bangladesh

Software Engineer (Backend / Full Stack)

Dec. 2025 – Present

- Owned end-to-end implementation of multi-tenant RBAC for SaaS and government ERP platforms, enforcing authorization across API, middleware, and service layers with strict tenant isolation.
- Led backend architecture for production ERP systems, designing request routing, concurrency control, fault-tolerant pipelines, and OCR/ML workflows serving **30K–50K daily requests**.
- Led delivery of a government ERP platform managing **9,000+ inventory items** across **9 manufacturing facilities** while automating procurement, approvals, and inventory transfers.

Junior Software Engineer

Feb. 2025 – Nov. 2025

- Developed HealthTech ERP platforms across React, Go backend services, REST APIs, and data-processing pipelines.
- Built a production document-processing pipeline processing **30K–50K requests daily**.
- Expanded ownership from frontend to backend engineering for security-critical and data-intensive enterprise systems.

TECHNICAL SKILLS

Languages:	Go, TypeScript, Python, SQL
Backend:	Microservices, REST, gRPC, Chi, Ent ORM, RabbitMQ, Redis
Databases:	PostgreSQL, MongoDB, ClickHouse, MinIO
Cloud & DevOps:	GCP, Docker, CI/CD, Git, Prometheus, Grafana, OpenTelemetry
Frontend:	React, Next.js, Tailwind CSS

PROJECTS

ProcessCache: Concurrent LRU Cache for Go

Jun. 2026

- Engineered an open-source, thread-safe in-memory cache for Go with exact LRU eviction, TTL expiration, namespace-aware quotas, and background cleanup.
- Designed generic concurrent APIs using Go generics and synchronization primitives, optimizing for low-latency access, predictable memory usage, and correctness under concurrent workloads.
- Published on **GitHub** and **pkg.go.dev**, accompanied by a detailed engineering case study documenting architecture, design trade-offs, and implementation decisions.

Repo: github.com/TonmoyTalukder/process-cache **Docs:** pkg.go.dev **Case Study:** tonmoytalukder.com/case-study/process-cache

EDUCATION

Ahsanullah University of Science & Technology

Apr. 2018 – May 2023

Bachelor of Science in Computer Science and Engineering

Dhaka, Bangladesh

- Thesis:** Built an NLP system for low-resource Bengali keyword-to-text generation, focusing on model training, evaluation, and dataset preparation
- Publications:**
 - * *Bangla Key2Text*, LREC 2026 (First Author). [10.63317/4wkpwxktwfn](https://doi.org/10.63317/4wkpwxktwfn)
 - * *Rank Your Summaries*, Springer LNNS 867 (Equal Contribution). [10.1007/978-981-99-8937-9_11](https://doi.org/10.1007/978-981-99-8937-9_11)

ACHIEVEMENTS and ACTIVITIES

- Led delivery of a government inventory management platform supporting **9,000+ inventory items** across **9 manufacturing facilities**.
- First author of a paper presented at **LREC 2026**, introducing a benchmark for keyword-to-text generation in Bengali.
- Released open-source datasets, pretrained models, and code to support reproducible research in Bengali NLP.