

MAHDI MAMASHLI

✉ bitsgenix@gmail.com | github.com/m-mdy-m | 🇮🇷 Iran

PROFESSIONAL SUMMARY

Backend engineer specializing in event-driven architectures and high-performance systems. Creator of Gland framework and multiple developer tools. Top 10 GitHub contributor in Iran with proven expertise in building scalable, modular backend solutions. Author of 15+ technical articles on algorithms, system design, and backend development.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, C, SQL
Backend Frameworks: Node.js, Bun, Express.js, Nest.js
Databases & Caching: MongoDB, MySQL/MariaDB, Redis, PostgreSQL
Architecture Patterns: Event-Driven Architecture, Microservices, RESTful APIs, Pub/Sub, CQRS
DevOps & Tools: Docker, Git, CI/CD Pipelines, Linux/Unix, Shell Scripting
Specializations: Performance Optimization, Caching Strategies, System Design, API Development

PROFESSIONAL EXPERIENCE

Open Source Developer

Jan 2023 – Present

Independent Contributor

Remote

- Architected and developed Gland, an event-driven backend framework with modular architecture, enabling teams to build scalable systems with decoupled components and protocol-agnostic communication
- Engineered QIKS, a high-performance in-memory caching system achieving 1M+ operations/sec with advanced eviction policies (LRU, LFU, TTL) and dependency graph support for TypeScript applications
- Built TideityIQ, a C-based CLI tool for algorithmic complexity analysis, providing Big O, Theta, and Omega notation calculations for JavaScript code optimization
- Authored and published 15+ in-depth technical articles on Dev.to and Medium covering advanced topics in algorithms, data structures, system architecture, and backend engineering best practices
- Actively contributed to open-source ecosystem, reviewing pull requests, mentoring developers, and establishing engineering standards across multiple projects

KEY PROJECTS

Gland Framework | *TypeScript, Node.js, Event Architecture* | [GitHub](#)

- Built complete event-driven architecture framework supporting multiple protocols (HTTP, WebSocket) with pluggable middleware system and dynamic event routing
- Implemented broker-based event system with namespaced channels, event propagation strategies, and strategy-based execution patterns for complex workflows
- Designed modular architecture enabling independent development and deployment of system components without tight coupling

QIKS Caching System | *TypeScript, Performance Engineering* | [GitHub](#)

- Developed microsecond-level caching system with O(1) CRUD operations supporting 1M+ ops/sec for high-throughput applications
- Implemented multiple eviction policies (LRU, LFU, MRU) with hybrid expiration (TTL, idle timeout), cascade invalidation via dependency graphs, and logical namespace separation
- Achieved sub-millisecond latency for cache operations through optimized data structures and memory management

ARLIZ | *LaTeX, Technical Writing, Computer Science* | [GitHub](#)

- Authored comprehensive book exploring data structures and algorithms from historical foundations to modern implementations, emphasizing conceptual understanding over memorization
- Created detailed visual explanations and step-by-step algorithm walkthroughs covering topics from ancient computing methods to contemporary data structure design patterns

Additional Projects | *Various Technologies*

- **TideityIQ:** CLI complexity analyzer for JavaScript using C for performance — **Cop:** Telegram bot with automated group moderation — **AGAS:** Bun-powered HTTP client with event-driven architecture

EDUCATION

Azad University

Bachelor of Science in Computer Engineering

Sep 2022 – Present

Iran

ACHIEVEMENTS & COMMUNITY IMPACT

Top 10 GitHub Contributor in Iran

15+ Published Technical Articles – Dev.to, Medium, personal blog with significant community engagement

Framework Creator – Gland framework adopted for scalable production applications

Active Mentor – Stack Overflow contributor, code reviewer, technical knowledge sharing