ERFAN AHMED SIAM

Full Stack Developer/Software Engineer (Laravel | Livewire | PHP | LAMP | Cloud | DevOps)
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PROFESSIONAL SUMMARY

I'm a software engineer with 5+ years of experience building systems for 100+ UK businesses. I specialize in the full production cycle, from architecture through CI/CD to deployment, using Docker, Linux, and Go to deliver reliable, high-performance applications.

What I'm Proud Of

- Restaurant Ecosystem Management**:** I maintain a comprehensive restaurant management system, including POS and customer ordering platforms, and I orchestrated the migration of this legacy Laravel monolith for 100+ UK restaurants from v5.6 to v12 with zero service interruption.
- Infrastructure Engineering**:** I replaced a third-party Pusher dependency with a custom Go-based real-time engine I built from scratch, which cut infrastructure costs and noticeably lowered latency.
- Zero-Downtime Migration**:** I led a high-stakes migration of over 1.4TB of production data using rsync, maintaining 100% data integrity with absolutely no downtime.
- Automated Media Pipelines**:** I developed a custom FFmpeg pipeline using PHP that integrates with the Discord API to fetch videos, automatically transcode and crop them for compatibility, and securely store the processed assets in AWS S3 buckets.
- Payment Systems**:** I designed and deployed a multi-currency subscription system via Stripe, ensuring everything was fully tested and reliable for global transactions.

WORK EXPERIENCE

Full Stack Developer, PHP (Part-Time)

Agora Studio – Montreal, Canada
Apr 2025 – Present

Architecting core systems for an animation community platform (Agora.Community) using Laravel (TALL stack), FFmpeg pipelines, Stripe, and AWS.

- Designed automated video processing pipeline integrating FFmpeg and Discord for competition submissions.
- Collaborated to build digital store (subscriptions + one-time purchases) using Stripe and Laravel Cashier.
- Implemented PHPUnit, Pest, and Playwright testing integrated into Bitbucket CI/CD pipelines.
- Engineered scalable S3-based asset storage and optimized delivery workflow.
- Modernized legacy modules to align with current Laravel architecture standards.
- Working in a collaborative environment with respect to ISO data protection regulations.

Software Engineer (Part-Time)

Magic Office – London, UK
Jan 2020 – Present

Lead engineer for Sass's cloud-based restaurant POS ecosystem, supporting 100+ UK clients independently.

- I migrated the core platform from Laravel 5.6 to 12, improving maintainability and scalability.
- Designed dynamic table booking and merging system for high-traffic restaurant workflows.
- Built complex meal-deal pricing engine handling conditional discount logic.
- Developed custom print server supporting USB ESC/POS and network printers.

- Replaced Pusher with Go-based WebSocket (publisher/subscriber) infrastructure for real-time messaging.
- Managed Linux servers, automated deployments, and monitoring to maintain 99.9% uptime.
- Built companion applications using Swift, Android, and Electron JS.
- Ensured web accessibility (WCAG) compliance across user-facing platforms

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Infrastructure Consultant (Contract)

Data Envelope – Bangladesh
Jan 2024 – Dec 2025

I specialize in high-scale migrations and server stabilization.

- Migrated 1.4TB+ WordPress-based newspaper ecosystem (Daily New Nation) across hosting environments.
- Applied a logical mindset and problem-solving approach to resolve MySQL memory exhaustion and optimize high-concurrency performance.
- Recovered system integrity following a security breach involving immutable bits using low-level Linux troubleshooting.
- Deployed aaPanel and MailCow as professional, zero-cost management alternatives to cPanel and WHM to meet strict budget constraints.

Lead PHP Developer (Full Time)

Kodezen – Bangladesh
Dec 2023 – Nov 2024

Developed high-scale WordPress e-commerce (Store Engine) and LMS (Academy LMS) systems.

- Architected a modular e-commerce engine as a WooCommerce alternative.
- Built dynamic pricing system supporting complex conditional rules.
- Integrated Stripe and PayPal for PCI-compliant recurring billing.
- Engineered CRM and Mailchimp synchronization pipelines.
- Optimized cart and checkout state management for high traffic.

PHP Developer (Contract)

Developer Look – USA
Jul 2025 – Aug 2025

- Built Laravel–Airtable integration with bi-directional webhook synchronization.
- Implemented OAuth2 authentication and rate-limit handling.
- Designed secure data transformation layer for legal record mapping.

SELECTED PROJECTS

RadInsight – Vision-Language Model (Llama 3.2 Vision) (Report Link)

- Fine-tuned 11B Vision-Instruct model using LoRA.
- Trained on 750,000+ radiology image-text pairs (MIMIC-CXR, CheXpert).
- Achieved ROUGE-L 0.78, BLEU-4 0.62, CIDEr 1.21.
- Built WhatsApp-based automated report delivery system (15–30 sec response time).
- Optimized training on RTX 3060 under 12GB VRAM.

Gusher – Real-Time Messaging Server (https://github.com/imerfanahmed/gusher)

- Designed as a lightweight alternative to Pushers.
- Implemented connection pooling and webhook handling.
- Optimized for low-latency broadcasting in single-tenant environments.

AvroPHP – Bangla Transliteration Engine (https://github.com/imerfanahmed/avro-php)

- Implemented a Trie-based phonetic mapping algorithm for efficient string conversion.
- Optimized for low-latency server-side rendering.

TECHNICAL SKILLS

- Languages: PHP (Laravel), Go, Python.
- Frontend: TALL Stack (Tailwind, Alpine.js, Laravel, Livewire), Vue.js, and JavaScript, Blade, Twig, Vite,ES6.
- Databases: MySQL, PostgreSQL, vector databases, and knowledge graphs.
- AI & Productivity: MCP (Model Context Protocol) Servers, Agentic Coding, Claude Code, Antigravity.
- DevOps & Deployment: Docker, CI/CD (GitHub Actions, Bitbucket Pipelines), Terraform, Linux, and Version Control.
- Cloud & Infrastructure: AWS (S3, EC2, Lambda, Aurora), Azure, Cloudflare, Nginx, Apache, Networking (Routing, Switching, Firewall), Port Security, Bastion, VPN, Reverse proxy, Load Balancing DB scaling, DNS Management, Cloudflare
- Testing & Reliability: Pest PHP, test-driven development (TDD), PHPUnit, Playwright, Cypress.
- Architecture & Design: Domain-Driven Design (DDD), REST APIs, SOLID principles, DRY, and KISS,Scalibility.
- Monitoring & Auth: Grafana, New Ralic, Zabbix, Prometheus, Sentry, OAuth2, JWT.
- CMS: Moodle, Wordpress, Shopify (Liquid), OpenCart

EDUCATION

- Masters in Cloud & Network Computing Engineering
  University of Staffordshire, UK
  Feb 2026 – Present
- Bachelor's in computer science & engineering
  University of Dhaka, Bangladesh
  2020 – 2025 (Session 2019-20; delayed due to COVID-19)
  CGPA: 3.63 / 4.00

AWARDS

- Runner-Up – Code Refactoring Contest (IUT), 2024
- 3rd Place – FEC Technofest Programming Contest 2022
- ICPC Asia Dhaka Regional Participant (2021, 2022, 2023)