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Expertise

• **Languages** - Python, Ruby, JavaScript,

Java, C#, PHP

• **Cloud platforms** - Microsoft Azure, AWS,

Google Cloud Platform

• **IaC** - Terraform, Ansible

• **Scripting & Automation** - Python, Bash,

PowerShell

• **AI/ML & LLM** - Prompt Engineering,

LLM integration, Agent tool design, Ollama,

scikitlearn, LightGBM, Prophet

• **Observability Tools** - Datadog,

Prometheus, Grafana, Loki, Azure KQL,

New Relic, Pingdom

• **Databases** - PostgreSQL, MySQL, Azure

SQL Database, MongoDB

• **Network & Security** - F5 Load Balancers,

Cloudflare CDN, Network Configuration

Mainul Hossain

DevOps Engineer

Experience

2025.06 – present

Optimizely Inc.

Managed Services Engineer

(Site Reliability Engineering Team)

- Developed an **AI-powered** infrastructure monitoring and prompt-optimization workflow to forecast readiness for **Black Friday**. Standardized PowerShell data capture, reducing manual performance analysis time by **30%**.
- Automated** Datadog agent recovery on **Elasticsearch** using a Terraform-managed Datadog Workflow and Azure RunCommand, which is VM/VMSS aware, audited, and handles escalations, reducing manual intervention time by **50%** and supporting a **99.99% SLA**.
- Implemented **Azure automation** for proactive diagnostics and health monitoring of **.NET Core** applications, reducing investigation time by **70%** and expediting incident response and root cause analysis.

2024.01 - 2025.06

Optimizely Inc.

Managed Services Engineer

(Strategic Support Solutions Team)

- Deployed containerized Python automation using Docker and Kubernetes for **audit** and **cost-optimization** workflows. This initiative reduced manual audit effort by **6 hrs/week** and enhanced execution consistency across different environments.
- Developed Python and Bash **automation for API-integrated** auditing, data extraction, and troubleshooting. This automation **reduced the time** to diagnose common issues by **35%** and standardized repeatable runbooks.
- Administered **Windows** and **Linux systems** and managed AWS and Cloudflare CDN for high availability during Black Friday campaigns. These efforts improved uptime to **99.99%** and reduced latency by **30%** during peak traffic.
- Supported **incident management** at levels 2 and 3 for **production outages**, handling **15 to 30 tickets** or incidents per week. Achieved a median resolution time of **20 minutes** and reduced the occurrence of repeat incidents.

2022.09 - 2024.01

Optimizely Inc.

Associate Managed Services Engineer

(Incident Management Team)

- Led incident response efforts during high-traffic surges and major system outages, ensuring quick detection and resolution.
- Managed Azure Administration for the DXP platform, achieving **99.5% uptime** across various regions.
- Developed standardized incident management procedures, **enhancing** escalation processes and documentation, which **reduced workload by 20%**.

Languages

English - Fluent

Bengali - Fluent

Awards

Aug 2023 | Optimizely Inc.
Optimizely Spot Award for
“Never Stop Improving”

April 2023 | Optimizely Inc.
Optimizely Spot Award for
“Getting it done together”

Certifications

June 2024 | Microsoft Certification
Azure Administrator Associate
Credential ID: MS0995597094

References

Available Upon Request

2022.03 - 2022.09

University of Scholars

Information Technology Officer

- **Designed** and maintained Windows **server infrastructure** for university web and **database** systems, improving service uptime to **90%** and reducing support tickets by **85%**.
- Deployed Windows **Server domain controllers** and organization-wide **Active Directory**, automating the computer network throughout the organization.

Education

2015 - 2022

Brac University

Bachelor of Science in Computer Science

CGPA: 3.14/4.00

Projects

Infrastructure Self-Healing Agent (AI/ML + LLM)

[Project Link](#)

- It is an **open-source**, Docker-first **self-healing** infra platform; achieving {success_rate}% auto-remediation success with **MTTR P50 {mttr_p50}** min over the last 7 days using circuit-breaker guarded remediation + full observability (Prometheus/Grafana/Loki).
- Added **AI/ML-assisted** incident analysis (local LLM chat + anomaly/prediction pipeline) and **reduced human triage** time by enabling natural-language queries over recent incidents with measurable recovery outcomes.

.NET Core Monitoring & Diagnostics (Azure App Service)

[Project Link](#)

- A PowerShell tool that **cuts troubleshooting by 80%**, used by **95%** of engineers. It monitors thread count, response time, and connections for **.NET Core on Linux** app services.
- **Automates** dumps and traces collection with dotnet tools, preventing duplicates and **reducing manual work**. Includes Azure Blob uploads with retry logic and log rotation.

Cloudflare DNS Records Export Tool (Parallel Extraction)

[Project Link](#)

- Built a **Python exporter** to inventory DNS records across Cloudflare zones, filtered by account, with pagination and retry logic.
- **Improved** performance using ThreadPoolExecutor parallelism and **Docker**-friendly output defaults for CI/CD and container runs reducing operational cost and time by **25%**.

Cloudflare WAF Rules Extractor (Security Audit Automation)

[Project Link](#)

- Automated extraction of Cloudflare custom firewall rules across all zones with action-based filtering (e.g., skip/block/challenge).
- Produced audit-ready CSV reports using parallel zone processing and resilient API retry/backoff behavior.

Pingdom API Automation & Monitoring (Async)

[Project Link](#)

- Built an asyncio/aiohttp tool for concurrent hostname checks using the Pingdom API with structured CSV reporting for ops workflows