Ahsan Fazal
Senior Software Architect & Cloud Infrastructure Engineer

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Professional Summary

Full Stack Developer and Cloud & DevOps Engineer with exceptional ability to transform complex systems through rapid mastery and systematic improvement. Specializes in high-performance cloud infrastructure and distributed systems, consistently architecting clean, scalable solutions for mission-critical applications. Combines unusually fast execution with rigorous design thinking, regularly turning challenging technical problems into elegant, maintainable systems. International conference speaker with proven expertise in cloud-native architectures, serverless transformation, and secure system design. Known for elevating development practices and driving teams toward technical excellence through clear architecture and automated workflows.

Cloud & Infrastructure	Development & Automation	DevOps & Platform Ops	Security & Reliability
Multi-Region Systems	TypeScript & Node.js	GitOps Workflows	Incident Response
Serverless Architectures	Go & Rust Tooling	Docker & Kubernetes	Threat Detection
Distributed Networks	Real-Time Systems	Monitoring & Alerts	OAuth2.0 & API Security
Cloud-Native Stacks	CI/CD Pipelines	Event-Driven Flows	Cloud Compliance

Professional Experience

Q42 & Philips Hue   Den Haag, Netherlands
Global IoT platform, 100M+ monthly requests

Infrastructure Engineer   Jun 2019 – Sep 2019

- Engineered RFC-compliant OAuth system, enabling seamless Apple and Google Home integrations on a global scale [OAuth 2.0]
- Transformed infrastructure from Netherlands-only to multi-region, reducing US latency by 70% [Multi-Region]
- Built API management system, meeting China/Russia data sovereignty requirements while scaling to millions of requests [API Gateway]
- Coordinated closely with a high-performance team of five, covering API, infrastructure, and multi-region replication [Collaboration]

Populytics   Leiden, Netherlands
National policy research platform powering government decisions

Cloud Architecture Engineer   May 2023 – Nov 2023

- Architected multi-region CDN using S3 replication, achieving automated cache invalidation with Lambda@Edge [CloudFront/S3]
- Developed event-driven pipeline (EventBridge/SNS/SQS) processing 100K+ daily survey responses to enhance data throughput [AWS]
- Designed GitOps-based IaC deployments, supporting per-PR test environments with RDS/DynamoDB snapshots [Infrastructure]
- Ensured survey data compliance with national policy standards, securing key government contracts [Data Compliance]

Systems Engineer   Mar 2021 – Dec 2021

- Engineered a scalable serverless stack with AWS Lambda, DynamoDB, and API Gateway, supporting 36K+ concurrent users [Serverless]
- Performed a zero-downtime migration from RDS to a custom-optimized PostgreSQL cluster, reducing costs by 60% [Database]
- Developed real-time survey engines using WebSocket APIs, handling complex branching logic across interactive surveys [Node.js]
- Built a comprehensive CI/CD pipeline supporting each PR with a dedicated test environment, integrating with Jira workflows [CI/CD]

Lean Motherfuckers   Europe
High-intensity innovation lab for enterprise clients

The Hacker (Full-Stack Developer)   2016 – Present

- Built native health monitoring suite (SwiftUI) with real-time HealthKit integration across multiple sensors [HealthKit]
- Engineered React-based scheduling interface with drag-and-drop, conflict resolution, and real-time updates [Frontend]
- Architected serverless video platform using CloudFront/MediaConvert, achieving sub-second video startup times [AWS]
- Designed Solidity smart contracts for fractional real estate investments with automated settlements [Blockchain]

Technical Innovation Lead   2016 – Present

- Pioneered a unique development methodology combining intense focus periods with strategic relaxation to drive innovation [Process]
- Delivered enterprise-grade systems for clients like Google and NS in record time, turning ideas into actionable MVPs [Impact]
- Led high-intensity sprints, consistently achieving a 90% adoption rate for new technologies and processes [Efficiency]
- Successfully delivered dozens of prototypes, with a time-to-market reduction of 40% for client products [Scale]

Street Art Cities   Global
World's largest street art platform with 64,732 artworks across 1,766 cities

Chief Technology Advisor   *May 2018 – Present*

- Designed an event-driven system using Lambda and EventBridge to process image uploads, handling 1K+ uploads weekly [Serverless]
- Created a single-table schema with GSIs to optimize data access for 60K+ artworks by artist, city, and country [DynamoDB]
- Implemented a multi-region CDN with CloudFront and Lambda@Edge, reducing storage costs by 70% [Infrastructure]

Lead Systems Engineer   *June 2017 – May 2018*

- Refactored PHP monolith into serverless microservices with API Gateway and 30+ Lambda functions using a custom authorizer [AWS]
- Led zero-downtime migration from MySQL to DynamoDB using DMS, maintaining data integrity with custom transformers [Data]
- Developed a React Native app with offline-first architecture, supporting real-time updates via AWS AppSync [Mobile]

Wortell   Netherlands
Azure security operations & threat response

Security Systems Engineer   *Aug 2021 – Apr 2023*

- Built a custom detection engine with 200+ KQL queries to analyze Defender ATP and network telemetry across 50K endpoints [KQL]
- Developed a threat intelligence pipeline integrating custom feeds via Azure Functions, reducing false positives by 65% [Go/Python]
- Automated incident response workflows using Azure Functions to orchestrate custom remediation actions [Azure]

Lunar Zebro   Delft, Netherlands
TU Delft space robotics mission

Head of Ground Segment Department (leading a team of 10+ people)   *Jul 2023 – Jan 2024*

- Rebuilt department's architecture from the ground up following a complete team turnover to restore operations [Architecture]
- Implemented agile sprints, reducing engineering cycles from 6 months to 2 weeks and accelerating decisions by 80% [Process]
- Introduced tools and practices, removing cross-department bottlenecks to streamline mission workflows [Systems]

Ground Segment Engineer   *Sep 2022 – Jun 2023*

- Overhauled space engineering workflow by applying lean methodologies from tech, improving efficiency [Engineering]
- Cut mission planning cycles from 3 months to 2 weeks by eliminating bureaucratic steps [Operations]
- Assumed an informal leadership role, fostering a shift from analysis-paralysis to proactive execution [Leadership]

GewoonMensen   Netherlands
COVID-19 Emergency Response Platform

Technical Lead & Chief Architect   *Mar 2020 – May 2020*

- Architected and led development of a COVID-19 response platform within 72 hours to handle urgent health demands [Architecture]
- Designed and deployed a scalable system on Google Cloud Platform (GCP) to support 100K+ daily users [Scale]
- Assembled and led a crisis response team of senior engineers, delivering a production-ready platform within days [Leadership]

NearSt   London, United Kingdom
Google-backed retail intelligence platform handling £100M+ in commerce

Lead Frontend Architect   *May 2018 – Jul 2018*

- Developed a real-time dashboard with WebSocket live updates, supporting 3K+ concurrent retail connections [React]
- Built a modular component system and Storybook-driven design, scaling efficiently across product lines [Architecture]
- Designed a federated GraphQL layer to aggregate inventory, analytics, and sales data for 100K+ SKUs [GraphQL]

Education

Bachelor of Science Aerospace Engineering – Minor in Computer Science   2020 – 2024
TU Delft   Delft, Netherlands

Bachelor of Science Physics – Elemental Particle Physics Track   2024 – Present
TU Delft   Delft, Netherlands

Speaking Engagements and Recognitions

- RChain Conference – Keynote Speaker   Berlin, 2019   - 1st Prize Winner ADE Hackathon   2017
- Blockchain Innovation Week – Presenter   The Hague, 2018   - Accenture's TNW Best 500 Under 26   2017 – 2024
- Internet of Agreements Conference – Presenter London, 2018   - GitHub Arctic Code Vault Contributor   2020