

Izhar ul Hassan

SOLUTIONS ARCHITECT · IOT ARCHITECT · CLOUD ARCHITECT

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"We are bound by our choices, but we are more than our mistakes."

Summary

- Solution Architect specializing in IoT, Cloud, and Data Platforms with **15+ years** of experience
- Experience delivering scalable, secure, and production-grade solutions across industries including manufacturing, shipping, telecom and healthcare
- Skilled in designing and leading IoT edge platforms, cloud-native microservices
- Hands-on with Azure and AWS cloud environments
- Experience with end-to-end architecture design

Skills

Cloud	Azure, AWS, Google Compute, Openstack
IoT and Edge	Linux, Yocto, Edge platform, IoT Hub, OPC UA, Modbus, Edge Gateways
Automation and IaC	Terraform, Ansible, AWS CDK, YAML
Architecture and Design	Domain Driven Design, Microservices, C4 Architecture
Data Engineering	Spark, Hadoop, Kafka, Streaming, time series, batch data, Jupyter
Programming	Python, bash

Experience

Grundfos

Hybrid, Denmark

SOLUTION ARCHITECT

Jan. 2025 - Present

- Designing scalable, cyber-secure architecture for **District Heating Optimization System**
- Leading **end-to-end** solution design and architecture
- Engaging with Stakeholders to understand business requirements and designing architectural roadmap
- Integration of **pumping hardware** to **Cloud** and **SCADA** via Edge Gateways
- Working with Industrial protocols **Modbus, OPC UA**
- Responsible for implementing **NIS2 and IEC 62443 compliance**, ensuring adherence to industry standards and regulatory requirements
- **Tech stack:** Solution Architecture, Azure, python, IoT, Industrial automation, IEC 62443

Alfa Laval

Copenhagen, Denmark

IOT PLATFORM ARCHITECT

Sep. 2018 - Dec 2024

- Designed and developed the data platform on the mission to enable data driven insights from industrial equipment
- Designed and developed the **edge tech stack**
- Hired and trained core engineering teams for **edge** and **cloud** platforms
- Worked across business divisions to capture digital requirements and deliver tailored connectivity solutions
- Integration into PLC solutions over Industrial protocols **OPC UA, Modbus, BLE**
- Worked on cybersecurity hardening of edge device stack
- Delivered platform automation **using Terraform, Ansible**
- Delivered metrics and monitoring stack (Telegraf, InfluxDB, Chronograf)
- **Tech stack:** Azure, Linux, python, Docker, IoT, Industrial automation, Solution Architecture

Novo Nordisk

Copenhagen, Denmark

AWS TECH LEAD

Mar. 2022 - Sept. 2022

- Architected predictive maintenance platform leveraging AWS Lambda, S3, Timestream, SQS
- Developed scalable microservices and data pipelines
- Applied Infrastructure as Code (CDK) and CI/CD with Azure DevOps
- Enabled visualization with Grafana for operational insights
- **Tech stack:** AWS Lambda, Grafana, AWS Timestream, AWS CDK, Python, Amazon S3

AP Moller Maersk

LEAD AGILE DEVELOPER

- Led data engineering team migrating on-prem Datalake to Azure Cloud
- Designed microservices-based Datalake architecture for analytics and ML
- Built ingestion, storage, and archival strategies for high-volume data
- **Tech stack:** Azure, python, Docker, Kubernetes, Kafka, spark, Hadoop

Copenhagen, Denmark

Aug. 2017 - Aug. 2018

Telia Sonera

SOLUTION ARCHITECT

- Built multi-tenant Kerberized Data Lake for telecom network data
- Built Data Pipelines for Crowd Analytics, Network Data (probes, CDRs), IPTV
- Optimized Spark jobs (10x speedup for anonymization)
- Migrated workloads from MapReduce/Hive to Spark
- **Skills:** Hadoop, Apache Spark, Python, Solution Architecture, Cloudera

Stockholm, Sweden

Mar. 2016 - Jul. 2017

PDC Center for HPC, KTH

RESEARCH ENGINEER

- Supported and optimized parallel programming applications using **MPI**, **OpenMP**, and **CUDA** on PDC clusters
- Administered and operated the **Cray XE6** supercomputer (35,000+ cores)
- Managed installation, configuration, and maintenance of HPC software environments
- Designed and developed a monitoring and accounting dashboard for cluster jobs (**Django**, **MySQL**, **jQuery**, **HighCharts**)
- Collaborated with researchers to design, parallelize, and **optimize high-performance applications**
- Authored and maintained end-user documentation for HPC resources
- Delivered technical support and training workshops for new users and staff

Stockholm, Sweden

Jun. 2009 - Feb. 2015

Education

KTH, Royal Institute of Technology

MASTERS IN SCIENTIFIC COMPUTING (COURSEWORK)

- Specialization in High Performance Computing

Stockholm, Sweden

2008

National University of Science and Technology

BACHELORS IN INFORMATION TECHNOLOGY

- Focus on Algorithms and Data Structures

Islamabad, Pakistan

2002 - 2006