# Izhar **ul Hassan**

SOLUTIONS ARCHITECT · IoT ARCHITECT · CLOUD ARCHITECT

*Malmo, Sweden*

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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

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|---:|:---|
| **Cloud** | Azure, AWS, Google Compute, Openstack |
| **IoT and Edge** | Edge platform, IoT Hub, OPC UA, Modbus, Edge Gateways |
| **Architecture and Design** | Domain Driven Design, Microservices, C4 Architecture |
| **Data Engineering** | Spark, Hadoop, Kafka, InfluxDB, Jupyter |
| **Programming** | Python, bash |

## Experience

**Grundfos** — *Hybrid, Denmark*
SOLUTION ARCHITECT — *Jan. 2025 - Present*

- Designing scalable, cyber-secure architecture for **District Heating Optimization System**
- Working with End-to-End IoT architecture design
- Working with Stakelders to understand business requirements and designing architectural roadmap
- Integration of **pumping hardware** to **Cloud** via Edge Gateways
- Working with Industrial protocols **Modbus, OPC UA**
- Integration of **Edge devices** to **SCADA**
- **Tech stack:** Azure, python, IoT, Industrial automation, Solution Architecture

**Alfa Laval** — *Copenhagen, Denmark*
IoT PLATFORM ARCHITECT — *Sep. 2018 - Dec 2024*

- Worked across business divisions to capture digital requirements and deliver scalable IoT solutions
- Designed and implemented End-to-End IoT platform with **microservices**
- Recruited and Trained IoT Development team from grounds up
- Integration into PLC solutions over Industrial protocols **OPC UA, Modbus, BLE**
- Developed device provisioning and commissioning workflows (Azure IoT Hub, Ansible, AWX)
- Implemented **Terraform, Ansible** for infrastructure automation
- Delivered metrics and monitoring stack (Telegraf, InfluxDB, Chronograf)
- **Tech stack:** Azure, 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

*Copenhagen, Denmark*

Lead Agile Developer

*Aug. 2017 - Aug. 2018*

- 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

### Telia Sonera

*Stockholm, Sweden*

Solution Architect

*Mar. 2016 - Jul. 2017*

- 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

### PDC Center for HPC, KTH

*Stockholm, Sweden*

Research Engineer

*Jun. 2009 - Feb. 2015*

- 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

## Education

### KTH, Royal Institute of Technology

*Stockholm, Sweden*

Masters in Scientific Computing (Coursework)

*2008*

- Specialization in High Performance Computing

### National University of Science and Technology

*Islamabad, Pakistan*

Bachelors in Information Technology

*2002 - 2006*

- Focus on Algorithms and Data Structures

Sprog🌐  Fransk5 Engelsk5 Dansk4 Esperanto1  IT skills💻  AutoCAD5 Microsoft Office4 Linux4 TCP/IP Lan3 Dimension3 FEM Design2 Robot2 LaTeX2