

# ALI ASGHAR MARVI

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## PROFESSIONAL EXPERIENCES

### KNIME Gmbh (Konstanz, Germany)

Mar 2021 – Present

#### Data Scientist

- Collaborated with the Educators Alliance team in the evangelism vertical to work on strategies enhancing the visibility of KNIME in academia.
- Designed and developed a custom time series extension in KNIME using KNIME's Python node development library.
- Played a pivotal role in designing and contributing to specialized spaces within the KNIME platform, focusing on Marketing Analytics, Supply Chain Analytics, and Digital Health Care.
- Named contributor in "[Machine learning for marketing on the KNIME Hub: The development of a live repository for marketing applications](#)" published in the Journal of Business Research, December 2021.
- Engineered an Arduino weather station integrated with KNIME Server API for data collection, followed by a comprehensive data pipeline for data backups and time series analysis.
- Actively engaged with the KNIME community by providing solutions and addressing queries on the KNIME forum.
- Collaboratively designed and taught L4 - Data Engineering and L4 - Data Visualization course in KNIME.

### JS Bank Pvt. Ltd. (Karachi, Pakistan)

Nov 2019 – Oct 2020

#### Automation Engineer

- Orchestrated end-to-end ETL pipelines, conducted comprehensive data analysis across diverse departments, and crafted insightful PowerBI dashboards and dynamic .NET charts, empowering data-driven decision-making.
- Innovated a streamlined RPA service in C# harnessing the Selenium library, seamlessly automating the generation of withholding tax certificates for customer accounts upon request.
- Pioneered the development of a user-friendly web portal within the cash management domain, enabling branch teams to efficiently input end-of-day vault cash balances, leading to better data insights and cash management.
- Strategically engineered a cohesive workflow for the account operations team, seamlessly uniting requests from social banking and phone banking.
- Collaborated on the construction and design of a robust data warehouse within the Hortonworks sandbox environment, focusing on employee attendance data, and conducted a comprehensive descriptive analysis for the HR department.
- Executed advanced time series analysis to forecast cash demand for the major cash processing cell.

### K-Electric Pvt. Ltd. (Karachi, Pakistan)

Feb 2018 – Nov 2019

#### Assistant Manager – Information Technology

- Spearheaded development and maintenance of diverse Business Applications on .NET and Android platforms.
- Pioneered an automated customer e-billing subscription service in .NET with a user-friendly interface, enhancing customer experience.
- Skillfully integrated mobile device management SDKs (VMWare AirWatch and IBM Maas360) into Android applications for implementing IT policies.
- Ensured alignment of deliverables with internal processes and stringent regulatory standards while supporting critical business applications.
- Produced custom ad-hoc reports and designed interactive QlikView dashboards to empower business users with insightful data.
- Implemented DenseNet neural network to automate the input of readings on consumer meters for meter reading staff in the field.

### QuickStart Inc. (Austin, USA)

June 2017–Sept 2017

#### Product Management Intern

- Ensured optimal course catalog quality by meticulously auditing and managing website course content.
- Designed and developed comprehensive Big Data Courses, crafting modules and defining objectives to increase the course catalog on the platform.
- Collected data in the form of relevant keywords for the Cognitive Learning Platform and enhance the learning experience of course participants.

### Sanofi-Aventis Pharmaceuticals Pakistan Ltd. (Karachi, Pakistan)

June 2017 – Aug 2017

#### ITS Service Desk Intern

- Engaged in critical server management discussions, contributing to upgrade strategies and backup/restore operations within the infrastructure team.
- Collaborated with vendors in the Network Fiber Redundancy project, assisting in quotation comparisons from different vendors.
- Played an active role in upgrading and maintaining core and access switches as part of the Infrastructure Network Enhancement initiative.

### The Citizens Foundation (Karachi, Pakistan)

Jul 2015 – Aug 2015

#### Social Internship – Alumni Development Program

- Served as a supervisor at TCF's Saudabad Malir Campus, overseeing the overall management of other interns and student activities.
- Designed and delivered a transformative Self-Development Course to TCF student alumni, empowering them to strategically plan their career trajectories ahead.
- Provided guidance and mentorship to TCF alumni students, helping them navigate life's decisions and adapt to an evolving world.

## EDUATION

**Masters in Computer  
Information Science**

University of Konstanz

**Oct 2020 – Jun 2023**

**Bachelors in Computer Science**

Institute of Business Administration, Karachi

**Jan 2014 – Dec 2017**

## TECHNICAL SKILLS

- **Languages & Development:** Python, JavaScript, Java, C#, R, KNIME
- **Libraries:** scikit-learn, Numpy, Pandas, Keras, Tensorflow, D3.js, matplotlib, seaborn
- **Frameworks:** Bootstrap, Flask, jQuery, Node.js
- **Database Tools:** PostgreSQL, SQL Server, MySQL, Oracle, MongoDB, Firestore
- **Cloud Technologies:** Microsoft Azure, Google Cloud, Firebase, Google Colab, Dialogeflow
- **BI Tools:** BIRT (KNIME), PowerBI, Qlikview, .NET Charts
- **Source Control:** Microsoft TeamFoundation, Git
- **CI/CD:** Docker, Gitlab
- **IDEs:** Visual Studio Code, PyCharm, Visual Studio, JupyterLab, Eclipse, Arduino IDE, Android Studio, Eclipse
- **Others:** Database Design, Pipeline Design, Data Analysis, Machine Learning, Deep Learning

## PROJECTS

### **Process Automation - CI/CD** (*Konstanz, Germany*)

**April - July 2021**

- Polished research papers from basic design to DBLP suitable paper using CI/CD Process Automation in Gitlab.
- Created Docker images for handling node.js and python-based dependencies for multiple integration tests.
- Configured Gitlab to handle Docker files and monitor CI/CD pipeline.
- Deployed polished research papers on the website interface for download.

### **Karachi Civic Innovation Lab - Volunteer Application.** (*Karachi, Pakistan*)

**Aug - Oct 2019**

- Created an application in Flutter for blind users to tap on the screen and notify volunteers in the vicinity to reach out.
- User role management for three users: admin, volunteer, and visually impaired person.
- Created cloud trigger written in Node.js and deployed on Firebase for sending out notifications.
- Integrated Firestore for handling requests and users' data.

### **Spark Retail – Big Data Solution for Retail** (*Karachi, Pakistan*)

**Jan - Dec 2017**

- Final year project in the final year of bachelor's.
- Used Hortonworks sandbox environment to configure a cluster of four computers with Apache Hadoop, Spark, Oozie, Storm, Hive, Sqoop, and Zeppelin.
- Wrote bash scripts in Linux to sequentially shut down and restart the services on each node in the cluster.
- Integrated external RDBMS and BI tools for visualization.
- Designed strategies for market research for the potential of the product and its industrial need.