

# ALI ASGHAR MARVI

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## PROFESSIONAL EXPERIENCES

### KNIME Gmbh (Konstanz, Germany)

Mar 2021 – Present

#### Working Student – Data Science

- As a member of the Academic Alliance team, I have designed strategies to increase the academic presence of KNIME.
- Developed time series analysis extension in KNIME using Python node development extension.
- Designed and developed supply chain analytics [use cases](#) in KNIME.
- Contributed to creating [use cases](#) in the area of digital healthcare in KNIME.
- Contributed to the [journal](#) of marketing analytics and related [use cases](#) in KNIME
- Designed and created a weather station in Arduino using KNIME for data collection and time series analysis.
- Supported the KNIME community on the KNIME [forum](#) with issues and difficulties faced.
- Co-designed and co-taught L4-Data Engineering and L4-Data Visualization course in KNIME.

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

Nov 2019 – Oct 2020

#### Automation Engineer

- Performed ETL and Analysis on various department's data and design dashboards on ASP.NET and PowerBI.
- Created and managed an RPA service written in C# for generating Tax Certificates for customers.
- Developed a web-based application for collecting data and managing cash flows for better cash management.
- Integrated and designed workflow for the operations team with requests raised on social banking and phone banking channels.
- Designed a Data warehouse on Spark using HR Attendance Data of all employees and carried out both predictive and descriptive analysis on Hadoop Ecosystem.
- Carried out time series analysis on the bank's cash demand for specific branches.

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

Feb 2018 – Nov 2019

#### Assistant Manager – Mobility

- Developed and supported an extensive stack of Business Applications on both .NET and Android platforms.
- Created a service to send out e-bills to customers based on their subscriptions.
- Worked and integrated mobile device management sdks using VMWare AirWatch and IBM Maas360.
- Ensured deliverables adhered to in-house processes and strict regulatory requirements.
- Delivered relevant ad-hoc reports to business executives.
- Carried out maintenance work on legacy E-Billing applications.
- Implemented DenseNet to read Meter Readings on Consumer Meter Images.
- Designed and developed dashboards on QlikView for business executives.

### QuickStart Inc. (Austin, USA)

June 2017–Sept 2017

#### Product Management Intern

- Catalogue Management – audited content in online courses listed on the website.
- Modified course outlines and proposed course outlines for big data courses.
- Collected Data for the Cognitive Learning Platform

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

June 2017 – Aug 2017

#### ITS Service Desk Intern

- Participated in server management meetings including the upgrade and backup/restore operations
- Participated in Network Fiber Redundancy project meetings with vendors and created quotation comparisons
- Involved in Infrastructure Network Upgrade and Maintenance of core and access switches.

### The Citizens Foundation (Karachi, Pakistan)

Jul 2015 – Aug 2015

#### Social Internship – Alumni Development Program

- Supervisor of TCF – Saudabad Malir Campus
- Managed student's code of conduct, attendance, and other related activities
- Taught a Self-Development Course to TCF alumni to plan their careers ahead

## EDUATION

Masters in Computer  
Information Science

University of Konstanz

Oct 2020 – Jun 2023

## 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.