ALTAF MUNAWWAR ABDUL GAFFAR

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PROFILE

A multi-skilled and experienced data scientist with a passion for making data accessible and understandable to both experts and non-experts alike. With over a 15-year international track record of accomplishments in project portfolio performance and risk management in a AAA credit-rated multi-lateral international financial institution. A delivery orientated professional, and a team player with a strong track-record in both in Academia and Business.

EXPERTISE

Data science, Data analysis, Data visualization, Predictive Analytics, Machine Learning, Data-driven decision making, Business Intelligence, Portfolio Management, Impact / Results Monitoring, Financial Projections, Business Analysis, Financial Policy Development, Portfolio Risk Management

WORK EXPERIENCE

Development Finance - Islamic Development Bank (IsDB), Jeddah Saudi Arabia

Lead Financial Policy Specialist / Data Scientist   **Jan 2020 - Present**

Leading the development of the next generation of financial policies and risk analysis to support the IsDB to achieve its global mandate.

Data Science and Financial Analytics
- Led the analysis of the pricing of IsDB financed projects, including analyzing the rate sensitivity, and its impact on future income, using data from multiple source systems, the data analysis using R and presentation of results via interactive Tableau dashboard
- Developed a financial analysis with R and Tableau utilizing project level contract commitments data to model and understand project performance and behavior, with the aim to predict future project disbursements

Data Platform Development
- Currently spearheading the development and deployment of an Enterprise Risk Management (ERM) platform in collaboration with Moody's Analytics, this platform will support the future, Risk, ALM and Financial Analytics at the IsDB
- Managed the development of the disbursement modelling track for the ERM, this involved building and testing a machine learning based model in R for predicting future project milestones and disbursements

Financial Policy Development
- Managed the development of the new Liquidity Management policy and guidelines to meet the growing needs and requirements of maintaining a 'AAA' rating at the IsDB
- Contributed to the development of the new Investment Management policies and guidelines of the IsDB, in collaboration with the World Bank

Lead Portfolio Management / Data Scientist   **Jan 2017 – Dec 2019**

Senior Portfolio Management   **May 2007 – Dec 2016**

Led the development of a data-driven decision-making culture within the IsDB, by enhancing and improving the Portfolio Management function, that is responsible for managing a US$ 30 billion international development financing project portfolio.

Strategic Planning
- Key contributor to the development of Strategic Plans, Medium Term Business Plans and Annual Operations Plans of the IsDB
- Conducted the financial data analysis of the IsDB's plans and devised effective mechanisms for the allocation of the project financing to maximize the Strategic impact
- Managed the design of the Key Performance Indicators (KPIs) for the Operations Complex
- Developed and deployed dashboards, reports, and analysis to monitor the achievement of the KPIs, using SQL Server and Tableau

Portfolio Management
- Managed the development of Policies and Procedures to improve the Portfolio Management function
- Pioneered the design and implementation of a novel Project Performance Index to track and compare project performance more effectively, using SQL Server and Tableau
- Spearheaded the implementation of an early warning mechanism for project delays using interactive Tableau dashboards and reports, leading to improving the health of the project portfolio
- Implemented a consolidated data warehouse to house portfolio data obtained from different systems and platforms, using SQL Server

Data Analytics
- Championed the adoption of a data-driven culture within the IsDB through empowerment of business users to do self-service data analytics
- Developed and deployed an interactive dashboard platform for portfolio data analysis using Tableau, thereby making project data analysis more readily accessible
- Led an analysis to understand trends in the administrative expenses of IsDB, using Tableau as an interactive data analysis tool, leading to the identification of several areas for improvement in the management and utilization of administrative expenses

Systems Development
- Involved in the development of the Operations Management System (OMS) within the IsDB's SAP ERP system both as a Key Business User and Subject Matter Expert, this included gathering of user requirements, development of

WORK EXPERIENCE

the business requirements, designing of the proto-type system, and the final-user testing & acceptance
- Led the development of the reporting function of the OMS, by providing insight into the design and content reports

Financial Analysis
- Participated as a team member, responsible for the project and portfolio data analysis, as part of the IsDB's Annual Risk Rating exercise with the Credit Rating Agencies (Fitch, Moody's, and S&P)
- Contributed data and analysis on the project portfolio for the IsDB's market based US$ 25 billion multi-year resource mobilization program
- Incorporated the future project performance into Financial Projections of the IsDB

Academic Researcher - Imperial College London, United Kingdom

Research Associate	**Mar 2004 – Mar 2007**
PhD researcher	**Oct 2000 – Feb 2004**

Research
- Conducted, industry supported research on arithmetic hardware optimization for FPGA based custom computing hardware, where the tradeoff between arithmetic precision and circuit area, speed, power was demonstrated
- The outcome of this research was published in several peer-reviewed international research conferences and journals

Academic
- Participated in the organization and review of submissions to several academic conferences and journals
- Involved in the teaching and supervision of undergraduate and postgraduate students, by organizing labs and tutorials, at Imperial College London and Kings College London

EDUCATION

PhD in Computing - Imperial College London
- Dissertation Topic: "*Bit-width optimization for arithmetic hardware*"

Research supported by the UK Overseas Research Studentship Scheme and Xilinx Inc. USA. Degree awarded in October 2005

BEng in Information Systems Engineering - Imperial College London
Graduated with First Class honors in October 2000

DATA SKILLS

Expert-level experience working and developing with several data-science tools and environments.

Data Engineering
- Development of data pipelines for data cleaning, validation, and loading, including the building of data warehouses, using SQL (MS-SQL Server), R, Python

DATA SKILLS	• Extracting and loading data from multiple different sources including SAP BW/BI, MS-SQL Server, Excel files, R/Python data sources and internet data sources (JSON)

Data Visualization
- Development of data visualizations using cutting-edge data analytics platforms including Tableau and Power BI
- Deployment of data-analytics dashboards, self-service analytics platforms, and user customizable reports

Data Modelling
- Analysis, designing, training, testing, validation, and deployment of several predictive data models using R, Python and MATLAB

IT SKILLS

Wide experience in IT spanning over 30-years including but not limited to the following:

Programming Languages
High level of experience using the following types of programming languages:
- Object Orientated Languages, including C/C++, C#, Java, JavaScript, Python
- Functional Languages - Haskell
- Application specific languages – R, MATAB

Systems and Tools
- Enterprise level - SAP ERP system - PS and MM, BW and BI for data extraction
- Hardware Design - VHDL, FPGA based hardware design tools familiarity in building high-level design tools, libraries, and circuit design
- Deployment tools - Docker-based containers, UNIX make

PROFESSIONAL MEMBERSHIPS

Institute of Electrical and Electronic Engineers (IEEE)
- Senior Member
- Senior Member - IEEE Computer Society
- Founder Chairman, IEEE Computer Society Western Saudi Arabia Chapter

Association for Computing Machinery (ACM)
- Member

RESIDENT STATUS

Australian Permanent Resident

REFEREES

Can be provided if required