# KARTHIKEYAN MALAYAPPAN- MASTER BLACK BELT-LSS, CBAP

### CONTACT

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### BANKING SKILLS

- Corporate & Retail Banking Expert
- Lending & Trade Finance Expert
- Retail Liabilities & Assets Expert
- Digital lending & IFRS9 Expert

### ML/ AI SKILLS

Machine Learning – Expert Time Series - Expert Deep Learning - Expert AI – Computer Vision & NLP – Expert Data Analysis - Expert

## LANGUAGES/PACKAGES

**Languages:** R, Python, PyTorch

SQL,

# PROCESS REENGINEERING & RPA

- 1. Lean Six Sigma Master Black Belt
- 2. BPMN 2.0
- 3. IBM BPM, Oracle BPM Suite
- 4. UiPath, Assistedge

#### **Core Banking Systems:**

FLEXCUBE®12.0, Finacle 10.x, Intellect Digital Core 17.1

Lending Systems:

Intellect Digital lending System

### PROFESSIONAL SUMMARY

Digital Transformation Leader in Banking with over 30 Years of experience in Operations, Technology and delivering Transformation to Bank's across Geographies with cumulative benefits of over \$250Million, handled hands on expertise in RPA & AI/ML (Includes GenAI) having delivered over 20 projects in Compliance, Corporate Banking, Retail Banking, SME & Risk Management and over 200 processes automated across banking. Experience in handling Team Size of over 400 FTEs, expertise in re-imagining Customer Lending Journey for Corprorate and Retail customers

### SIGNIFICANT ACHIEVEMENTS

- Established the **AI/ML team** from scratch, created governance standards, policies, recruited, trained and delivered projects that provided benefits of over **\$25Million**.
- Developed an AI/ML application for Transaction Monitoring / Name screening to reduce False Positives by 75%, thereby saving over \$10 Million annually.
- Re imagined the entire journey for Lending for Retail and Corporate customers to develop an Innovative LOS, LMS and collections system, improving revenue to \$12M from \$4.47 Mio
- Project Managed and Implemented Trade Finance Solution (HIE) for HSBC to Transform the Trade Finance in over 66 countries.
- Part of Team that Conceptualized, Designed, Developed and Project Managed workflow based Corporate Loan Origination System to cover from Financial Spreading to Limits Loading (CARM) to improve TAT from 15 Days to 4 Days
- South East Asia Bankers Award for best hyper personalization of MayBank internet banking channel MayBank2U
- Expertise in multi geography Implementation of Core Banking Solution FLEXCUBE(R) and Lending Suite from Intellect
- Assessed Analysed and Improved over 200 Processes in Banking for Automation and used RPA to automate these processes

### **WORK HISTORY**

**Head Transformation - BFS** 07/2023 to Current **WNS Global Services** - Bangalore

 Successfully created Transformation Road map for Top 5 Customer's and delivered over \$3M worth of benefits by executing projects using various levers including BPR, Automation, GenAl

- Led the design and development of GenAl solutions for Adverse Media Screening and Summarization and Automation of Email responses using BARD and ChatGPT(LLMs) that delivered \$1M in Benefit to customer and WNS
- Carried out a BU wide Productivity uplliftment Automated project that resulted in cost reduction on over \$5M, thereby increasing the margins
- Automated around 10 processes in Trade Finance and Corporate Banking to reduce cost by 35% for WNS
- Contributed from a Transformation angle to provide holistic solution to customer on various RFPs, helping WNS win deals with TCV of over \$100M
- Handling Team Size of 150

# **Head – Data Science, Artificial Intelligence & Innovation** 12/2021 to 07/2023 - **MayBank** - Bangalore

- Identified over 36 Innovation opportunities in e- channels, Corporate Banking, Retail and SME Banking and Risk Managment and helped the bank improve its Cost to income ratio by 7%
- Established Machine Learning and Artificial Intelligence Department comprising Data scientists, Data engineers and MLOps and enforce standards and procedures set for development and testing of models
- Developed policies and procedures for the AI/ML vertical, including setting up Model Validation, Model Risk, Model Fairness and Relevance and enforcing these policies by setting up committee to evaluate all models in line with BNM regulations.
- Used Innovative Algorithms on Self Supervision (BYOL etc.) and self attention layers in Deep Learning to ensure continuous learning of the models
- Handling Team Size of 100+

### **Key Projects**

- Developed a AI/ ML solution that was deployed over the current
   Transaction Monitoring and Name Screening Solutions, the solution
   had ensemble of Models (XGBoost, Random forest and SVM for
   Supervised Models, KNN, Isolation Forest for unsupervised, LSTM,
   GRU, Siamese network and cosine similarity for NLP) reduced cost
   by \$10 M
- Created a Straight through processing for SME Loans using Supervised models and RPA (XGBoost and Random forest) – resulting in increase of SME market share from 17% to 23%
- Created a Supervised learning model (XGBoost & SVM) to calculate Economic Capital for the Bank – Identified High Risk business and reduce capital requirements by 20 basis points

# Chief Business Officer - Emerging Technologies, 05/2018 to 12/2021 AQM Technologies Pvt Limited - Mumbai, Maharashtra

- Built the RPA/ AI/ ML business from scratch, which included recruiting right talent, identifying service offerings, creating the GTM strategy and handling Sales and Delivery
- Developed Business in the Middle east, garnered 34 logos from zero in UAE, Qatar, Oman, Bahrain and Saudi Arabia

- Developed and delivered over 200 BOTs with both UiPath and Assistedge saving over \$10M for multiple clients
- Developed and deployed various applications using AI/ML like
- Created a Sales Strategy that helped emerging technologies win business over \$5Mio in the first year with team size of over 50 members
- Keynote Speaker on AI/ML and RPA across various seminars and have delivered lectures on "Increasing Productivity", "Lean Six Sigma during COVID", "Uses of ML in enhancing productivity in BFSI" etc
- Handling Team of 500+

#### **Key Projects Delivered**

- Some of the RPA processes automated were Nostro reconciliation, ATM reconciliation, LC Issuance, Retail Loan Origination, Cash to accrual on Oracle Suite, Invoice Automation etc.
- Video KYC (RESNET and CNN), Credit Card Marketing (Random Forest & stacking), Predicting NPA (SVM & Naive Bayes), Support Desk Ticket Classification (NLP using LSTM & SVM with RPA), Prediction for Marketing campaigns on Retail Liabilities (Stacking, Logistic Regression)

### PREVIOUS EMPLOYMENT IN BRIEF

Freelance-IFRS & Digital Transformation Consulting, 09/2016 to 05/2018

Self Employed - Chennai, Tamilnadu

Vice President and Business Head - Banking, 10/2015 to 09/2016 Maveric Systems - Chennai, Tamilnadu

Senior Vice President and Business Head - Lending, 09/2014 to 10/2015

Intellect Design Arena Limited - Chennai, Tamilnadu

**Director - Banking Practice,** 12/2013 to 08/2014 **Syntel Inc.** - Chennai, Tamilnadu

**Principal Consultant and Head Presales,** 01/2013 to 11/2013 **Wipro Technologies** - Bangalore, Karnataka

**Founder & CEO,** 07/2010 to 12/2012 **Veggiefresh.co.in** - Bangalore, Karnataka

**Director - Process Consulting & Strategy,** 04/2005 to 07/2010 **Oracle Financial Services -** Bangalore, Karnataka

**Various Positions,** 08/1994 to 03/2005 **HSBC** - Bangalore, Karnataka

### **KEY PROJECTS EXECUTED**

### **Products Developed (without AI/ML)**

- Project Managed, Developed and implemented End to End Trade finance solution (HIE) which included all Export (Collections, Negotiation Advising etc.) and Import (LCs, Payments, Collections etc.) and implemented in 66 countries
- Project Managed development and Implementation of Corporate Loan Origination (CARM) which covered all activities from Relationship Management to Balance sheet, profitability, Credit Decision, Collaterals and Limit Management

#### Products Developed (with AI/ML)

- Developed a 10 minute loan origination system that used supervised models (XGBoost)
- Used Copula and Bayesian Networks to create a simulation engine to simulate the Stress on various economic parameters
- Embedded and early detection model (SVM and XGBoost) in collections systems to identify accounts that may default
- Developed a Risk Based Pricing Model (Linear regression) to identify pricing based on Risk

### **EDUCATION**

PGDM : General Management, 04/2004 Indian Institute of Management – Kozhikode 3<sup>rd</sup> in a Batch of **127** 

 $\textbf{Bachelor of Science}: \textbf{Physics}, \, 04/1993$ 

Pune University - Pune

PGP in Artificial Intelligence & Machine Learning: Machine Learning & Artificial Intelligence, 08/2020 - Top 1% of Class with 97% Great Lakes Institute of Management & McCombs School of Business University of Texas

### **CERTIFICATIONS**

- Certified Business Analysis Professional (CBAP)
- Master Black Belt Lean Six Sigma