



**BHADALE GROUP OF COMPANIES
- IT AND REAL ESTATE**



Oct 12 2019

Data Science Project Methodologies Catalogue

Bhadale IT Developers Pvt. Ltd | Bhadale Real Estate Developers Pvt. Ltd (registration due)

Plot No. 52, Hindwadi, Belgaum, KA, India | Mobile: +91- 9741040195 | Website: TBD

Bhadale Group of Companies

Bhadale Group of Companies consists of Bhadale IT Developers Pvt. Ltd and Bhadale Real Estate Developers Pvt Ltd.

1. **Bhadale IT Developers Pvt. Ltd** is an IT and Computer Engineering company

This company provides consultation in areas of cutting edge technologies, research outsourcing, and software consultation related to data center and related engineering practices

2. **Bhadale Real Estate Developers Pvt. Ltd** is a Real estate company

This company provides development of Infrastructure for IT Datacenter and allied sectors. It manages the engineering design, landscaping, civil architecture, presently serving internal projects.

Bhadale Group of Companies has aggressive programs in place to serve the niche market.

Bhadale IT Developers Pvt. Ltd Programs and Services**IT Division programs**

- 1 Cloud Architecture
- 2 AI
- 3 Digital
- 4 Automation
- 5 R&D services
- 6 Engineering services
- 7 Mentoring Services
- 8 Data center services
- 9 Outsourcing

There are various services offered under each program, details are described below

IT Division program related services**Cloud Architecture**

- Cloud Enterprise Architecture
- Cloud Business Architecture
- Cloud Information / Website data Architecture
- Cloud Solution Architecture
- Data center Virtualization and Cloud services (IaaS)
- Cloud Technical Architecture – Project specific
- Cloud ERP Solutions (SaaS, PaaS)
- Cloud Strategy and Transformation
- Cloud Systems Integration and consolidation
- Cloud Project Management
- Cloud Pre sales support
- Business Needs (RFI/RFQ/RFP assistance)
- Cloud Quality Initiatives

- Cloud Business Analysis
- Cloud Infrastructure Planning – hardware , network, storage , backup (IaaS, PaaS)
- Cloud business portfolio assessment services (workshops)

AI

- Artificial intelligence and advanced machine learning
- Intelligent applications, Intelligent things
- Conversational systems
- Mesh app and service architecture
- Adaptive security architecture

Digital

- Virtual reality and augmented reality: Brief capability, deliverables and service offering
- Digital twins
- Blockchains and distributed ledgers
- Digital technology platforms

Automation

- Robotic Process Automation
- IoT
- Manufacturing robots
- BPO call center robots
- Chatbots
- Remote workers
- Hazardous jobs robots(Mine bombs, nuclear waste, underwater, space etc)

R&D services

- PHD mentor, buddy
- BPO - Outsourced work in areas of research areas related to IT and Computer Engineering

Engineering services (Only Engg)

- Engineering services for Data centers
- Engineering services for IT Departments
- Engineering architectures, drawings, road ways, town house planning, parking, safety, outdoor maintenance, lighting etc
- All other aspects of engineering: Civil, electrical, water and sewage, safety and mechanical motors, pumps, refrigeration, cooling

Mentoring Services

- IT Mentoring
- Engineering Mentoring
- Business Mentoring
- Mentoring for special categories based on age, and disabled
- Mentoring for special professionals like Military and Govt officials under Govt Programs

Data center services (Engg + IT)

- Data center Engineering services
- Data Center IT Services
- Data center Security services
- Data Center QA services
- Datacenter Cloud services
- Datacenter compliances services
- Data center based business solutions

Outsourcing

- Insourcing
- Outsourcing
- Near sourcing
- Cloud sourcing
- BPO services
- IT specific services
- Engineering specific services
- Training specific services

Service details for Bhadale IT Developers Pvt. Ltd

IT Division programs – Data Science Project Methodologies



Image courtesy (The Web), no intention for copyright infringement

We have a large set of offerings; few are mentioned below

Below are highlights of our processes, methodologies, we follow to ensure quality deliverables. We use a combination of these guidelines and custom these as per unique project needs. *Focus is on methodologies, processes and strategies rather than actual implementation*

No	Name	Key component features / Use cases
1	Data Science – project hypothesis / business cases	<p>We offer services that enable better understanding of your business and your hypothesis that you need to verify before implementing the same in your enterprise.</p> <ol style="list-style-type: none"> 1. The major steps involved in tackling a data science problem. 2. The major steps involved in practicing data science, from forming a concrete business or research problem, to collecting and analyzing data, to building a model, and understanding the feedback after model deployment.
2	Analysis / Design of data maturity models/ pre & post engagement	<p>We offer industry standards based services with a broad overview of the type of work we handle are as below</p> <ol style="list-style-type: none"> 1) CMMI data maturity models -assures clean datasets, availability of right data at right place and time, either persisted, in transit or semi transit, work in progress. 2) Big data maturity model - Descriptive, comparative, prescriptive models. <ol style="list-style-type: none"> a. Descriptive model- BM big data and analytics model, Knowledgent big data maturity assessment b. Comparative model- TDWI big data maturity model ,CSC big data maturity tool c. Prescriptive model-Booz and companies maturity model, Van Veenstras model.

		<p>3) AI maturity model from Gartner, AI alliances, DM group</p> <p>4) CRISP-DM which comes from SPSS and SEMMA which comes from SAS.</p>
3	Design of data processes / lifecycle strategies and models	<p>We offer services that assist in better design of processes, and models, with few of our works as below</p> <ol style="list-style-type: none"> 1) Process /lifecycles, incremental steps like: <ol style="list-style-type: none"> a. Qualitative, Quantitative and Hybrid methods for data analysis , and scoring models b. Import data, clean data, transform data, enrich data, correlate data, delete redundancy, PCA data, feature analyzed data, statistic functions data, manual and automatic inspected data, redone data for step improvement, QA passed data. c. Data structures design, model building, statistical functions used, features that enable proper I/O operations, sorting, classification, labeling and proper prediction, accuracy, run time, debugging, generalized against over fitting, model that can extent, reused, deployed to various OS, configuration, machines and easier to be converted to std file formats. d. Integrate the required dependencies, ext. files, libraries, open source; Java, Compilers, IL / target language, formats using editors, IDE. e. Sample build, test, run, analyze scenarios. 2) Use training dataset to train models for required epochs, using relevant AI, NN layers, optimizers, gradient, non-gradient, regression, stochastic features. 3) Iterate the trainings for varying parameter combination,hyperparameters, gradient size, cost functions, time taken, algorithm variants, genetic types, Hardware, Network variants, and observe the results, graphs and statistical variables. 4) Generate report based on observations, as applicable to real world cases.
4	Design of data project packages/ Deployment assets	<p>We offer extensive services apart from the out-of-box packaging solutions. Below are few of our offerings:</p> <ol style="list-style-type: none"> 1) Bundle deployable assets, modules, containers, VM, config files, descriptors, boot files, reg. Files, versioning labels, class types, code base, API references, dependency descriptors, manifests, meta data, URI, Rest end points, firewall settings etc 2) Verify the security of the assets and deployment descriptors. 3) Verify form factors of deployment targets, communication channels, protocols, ports, filters applied, subscription models, power-on tests, diagnostic, updating strategy, control signals, ramp up, ramp down steps, & troubleshooting 4) Deploy the AI/ML, entities, libraries, modules, as per infrastructure, tools languages, CI, CD needs, & file formats.

5	Design of data testing strategies / test cases	<p>We offer manual, automated and hybrid testing models using industry metrics and testing tools, Few of our works are:</p> <ol style="list-style-type: none"> 1) Client side testing, distributed, stand-alone, hi-volume, negative testing, false positives testing 2) UAT approvals, rectify any feedbacks as per PMI 3) Draft testing manual, operational steps, repair methods and follow ups. 4) Handover turnkey assets, after due sign off and approval from both side teams, sales, account, and technical, owners. 5) Big data specific testing for No Sql., volume, variety and veracity 6) Testing of data science algorithms, efficiency of data structures and the ability to remove hard coding, give extensibility, scalability and error handling cases
6	Data Devops	<p>We offer operations research, management and advices that help you in better visibility of the IT asset lifecycle right from Development to post production. Few of our techniques that we use are as below:</p> <ol style="list-style-type: none"> a) Data locations, at data warehouse, data lakes, remote datasets, client side data, data feeds, structured, & unstructured text b) Design of data structures, algorithms, models using statistical, inference engine, use canonical models, offloading of training parts, parallelism, SISD, SIMD, hyper scalar, vectorisation, array ,2/3d processing, interface for sensors, discrete, continuous feeds, A/D conversion, FFT, Digital processing, control loops, - this is DEV stage. c) Coding of data model, data structures, algorithms, inference engines, unit testing, integration testing, security, end points, RBAC, REST, SOAP, HTTPS, configuration files, version management, Github integration, and CI/ CD setup. This is TEST stage. d) Prepare and deploy unit tested package to PROD stage. Manual, auto-push / pull notification, heartbeats, health diagnostics, log filing and reporting. Target OS, Platforms, endpoints, remote, distributed, standalone, configuration, real time behavior of autonomy units, error correcting, recovery, fallback steps, platform level integrated steps, worker roles, master roles. e) Post-deployment, Operations research/mgmt, governance, predictive maintenance, relay of key working insights, lifecycle mgmt, and renewals. <p>All above steps are kept made in synch with an orchestrator like Kubernetes, BizTalk, container mgmt, along with threat detection, and counter measures.</p>
7	Governance / Enterprise architecture	<p>We offer services that enable better governance and integration with existing / new enterprise architecture, below are few of our services</p> <ol style="list-style-type: none"> 1. Progress planning for your next milestone, maturity model, ISO 15504, DM group, IoT, 5G, subset realization using proof of concept, phased release to departments, and divisions. 2. Governance processes, standards , AI,ML assets made part of Enterprise Architecture, TOGAF assets, Cloud citizens, integrated with other tools, products, offerings, and alignment with business needs

8	Data Security	<p>1. Few of the data security jobs we handle are:</p> <ul style="list-style-type: none"> a) Control framework- NIST 800-53,& CIS controls b) Program framework -ISO 27001, & NIST CSF c) Risk framework - NIST 800-39,800-37,800-30, and ISO 27005
9	Project specific work packages / software solutions	<p>We offer project specific solutions, vendor product specific services and individual team and technology specific services</p> <p>We offer best optimized solutions for projects under Azure, AWS, and GCP. We have specialist support to help you migrate from any platform to AI driven platform. We offer required solutions, licenses, hardware, software, network, IOT, protocols, and testing. All of these happen as per client's need along with home grown apps, & systems.</p>
10	Custom solutions strategies	<p>Data deep cleansing, wide range of features for data export / import, meta data, mappings, genetic algorithms , parallel computing, use of various techniques to improve data quality , MDM, handling complex relationships, resolving complex relations, redundancy, data lakes, data warehouses, data mining, graph trees for unstructured data , graph analysis, IOT integrations, M2M, M2H, telemetry, analog, discrete, Fourier transforms, time series, spatial data, geo location data, image, voice, NLP data, encryption, compression, data sets, canonical models, data templates , RPA, and Cognitive automation</p>
11	Vendor/ product specific services	<p>We have strong relations with industry leaders and have partnerships that make us better equipped to offer tailor made solutions to your exact needs. Few of the leaders we engage with are:</p> <p>Microsoft, Dell-EMC, Apache, Google, Cisco, Amazon, Engineering agencies and several international leaders</p>

Disclaimer:

Several details have been sourced from the web and we have no intention to infringe any names, copyrights and data that might be presented in this document. This is for information and educational purpose only and no monetary claims can be made. Please advise us for anything that you feel to let us know.

For more details, contact below:

Contact**Bhadale IT Developers Pvt. Ltd**

CTO: Vijay Mohire, 9741040195; Email: vijaymohire@gmail.com