BHADALE GROUP OF COMPANIES
- IT AND REAL ESTATE

**Aug 23 2018**

# Data Science Catalogue

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

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**Service details for Bhadale IT Developers Pvt. Ltd**

**IT Division programs - Data Science**

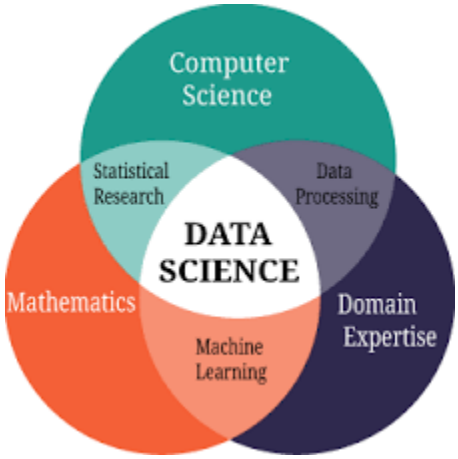


Image Courtesy: The web

This is an initial document that captures the need to serve in this data platform.

Below are the points that we are considering to adopt in our offerings

1. Services to include offerings in training, project work, thesis mentor, innovative ideas and solutions
2. Service catalogues to cover the above offerings with list of tools, theories related to data-science and ecosystems to cater to the needs of these domains, along with project management, and meeting expectations of clients
3. Sample data-sets for sample projects along with versioned code in GitHub
4. Sample codes to be based from key languages like Python, R, Scala for backend, React / JavaScript based libraries for front end
5. Demonstrate how my AI/ ML offerings integrate with Industry Data science frameworks, tools, processes
6. Demonstrate how my Data Science pipelines, projects, ideas work in the cloud and digital platform
7. How my offerings are applicable to various industries like BFSI, Energy/ Utilities, Aerospace, Engineering, Manufacturing, IIoT, IoT for Telecom, domestic use, Smart city, Smart Living, and other intelligent systems
8. How my offerings will benefit the general public, social groups, homes, personal use,M2M, B2B, B2C
9. How the disruptive technologies are being utilized like newer protocols, low energy devices, edge computing, cloud scale
10. How we plan to see our offerings as code libraries (plug & play), integration services, deployment services, standalone product
11. What market do we sell and who are the possible buyers interested in our offerings?
12. How different is our offerings than competitors?- w.r.t vendor lock-in, technology agnostics, deployment, integration with AWS, Azure and how to plan to send updates
13. Describe the types of projects we have handled, size, team, complexity, assets delivered and QA
14. Did anyone third party assess your work, graded and feedbacks
15. If offered a project work how best will you deliver , what capabilities you possess, your experience
16. How do you relate your academics/ trainings to your work and this project

17. What is your typical work during the project, plans to report work, manage issues and communicate with your clients, partners and your team
18. How is data privacy , GDPR achieved
19. What are your USP/ differentiators?
20. What are your companies legal standing formalities

**Details:**

1. **Services** to include offerings in training, project work, thesis mentor, innovative ideas and solutions

**Trainings**: Typically 1week full time (35 hours+- 1 hour), 2 weeks part time or as per convenience for working professionals

**Key topics**:

- Theories of Data Science (4 hours), I. Data analysis and statistics, II. Data lifecycle, III. Data management and infrastructure
- Introduction to popular tools, packages and IDE (4 hours)
- Simple programming in Python, R, & Scala using open source tools (12 hours)
- Deployment to cloud (4 hours)
- Mini-project (10 hours)
- Course summary and wrap up (1 hour)

**Project work**:

Dedicated faculty will be offered to assist in your project work (academic or commercial) and help will be offered in areas of idea seeding, environment setup, coding, deployment, QA and adherence to guidelines

Typical engagements will be part time, full time, remote and mentoring only

**Thesis mentoring**:

Offering MS and PhD external mentoring services to students on a part time, full time and remote basis, topics should be related to Computer Engineering in areas of AI / ML/ Data science

**Innovative ideas / solutions:**

This is mainly for startups that have brilliant ideas or seek ideas for their startup, brainstorm ideas to generate a unique solution. We will guide advice in the early stage startup with one founder, no company and no money. We will assist poor students to make realize their startup dream for a small equity / royalty / share in their establishment. We will guide support and bill for only profits that are realized through our efforts

2. **Service catalogues** to cover the above offerings with list of tools, theories related to data-science and ecosystems to cater to the needs of these domains, along with project management, and meeting expectations of clients

**Service catalogue for training**:

This will provide a bird's view of the offerings in form of documents. This will offer details of the trainings at task level. For e.x Theories of Data Science will shows slides, evolution of SQL, No SQL, Rules, Algorithms, Data structures that we used to manage data earlier and big data now. For practical use of various tools for Data gathering, cleaning, enriching, dimensionality reduction, feature engineering, modeling, training and deployment of model to target platforms

**Service catalogue for project work:**

This includes the various tools we are able to handle and process we use to design, develop, test, validate and deployment to production

**Service catalogue for thesis mentoring:**

This offers details of the template available, processes, original content, research environment setup advice, versioning, anti-plagiarism and methodology to handle theory and practical.

**Service catalogue for innovative ideas / solutions**

This offers process we follow to ensure originality of the idea, IP protection, how abstraction is moved to systems design, implementation and how the actual process is engineered inline to inter-disciplines of IT

3. **Sample data-sets** for sample projects along with versioned code in GitHub

This will be code asset and will be associated to a project. The samples will be generic that can be used by various domains, languages and IDE. Suitable file formats like JSON, XML, .Py, or related Meta data will be shown.Versioned copies to be made available in GITHUB

4. **Sample codes** to be based from key languages like Python, R, Scala for backend, React / JavaScript based libraries for front end

This will have public sharable project code, mainly academics, personal works, mentoring assignments and any open code with no commercial license. These will be a separate repository than the Data-set repository and will have samples in various languages like Python,R, Scala that will showcase our skills and these can be reused as part of other projects. Various level of complexity, resolving real world problems will be offered

Repositories will showcase new paradigms like Reactive, React.js, Python, Scala that are used in platforms like AWS, Azure, digital platform and stand-alone systems.

5. **Demonstrate** how my **AI/ ML offerings integrate** with Industry Data science frameworks, tools, processes

This will offer insights into how my AI / ML / Data science offerings work well with the Industry standards, frameworks, NIST, ISO, GDPR, IP, and CMM quality standards

Show how it is easy to use new and open technologies help you build a project, scale and deploy solutions to various domains that have good level of flexibility, configurability and use disruptive protocols. Less wastage and lean uses extreme programming, JIT steps for engagement with clients for better confidence

6. **Demonstrate** how my Data Science pipelines, projects, ideas **work in the cloud and digital platform**

Mainly to showcase how my D/S projects fit into your enterprise needs for various benefits and value add to your enterprise, partners and how you will benefit from investing in this venture. How you can evolve over time with just the right investment now, even providing your assurance for this project

7. **How** my offerings are applicable to various **industries like BFSI, Energy/ Utilities, Aerospace, Engineering**, Manufacturing, IIoT, IoT for Telecom, domestic use, Smart city, Smart Living, and other intelligent systems

This will show how the business use case from various domains, industries, and state-of-art issues, prevailing conditions, issues will all be addressed by adopting AI / ML and my solutions for these sectors

For e.x. how Industry 4.0 will benefit Automobile industry in improving **monitoring, data analysis and predicting various aspects related to manufacturing,** ERP and enterprise as a whole. Showcase how my recommended products will benefit the enterprise in short and long term and how clients can expect to recover current investment costs in short period and improve their productivity. Showcase how my ideas, kits and ready templates can help the project

8. **How** my offerings will **benefit the general public, social groups, homes**, personal use,M2M, B2B, B2C

This shows how my technology offerings assist the non-technical users, business persons and not-so intelligent, handicaps elders, the sickly people and how the under-privileged groups can leverage my services without any bias or pressure to use the service.

For e.x how in a Smart city, client can use my gadgets to plan the whole city dwelling, annual planner and organizer with real time alerts, beeps, network alerts etc can help the resident to be safe, healthy and have access to the required aid in time.

9. **How** the **disruptive technologies are being utilized** like newer protocols, low energy devices, edge computing, cloud scale

This shows how my products, services and offerings embrace newer technologies and keeping abreast with the new buzz.

For e.x how my projects use AI/ ML / VR / AR to make lives a better living environment. Shows how the new products bring in better life to the needy and improve their life using the research work done by scientist to make us live better. This also shows how anti-patterns are seeded by many players and how money is the only the means they live for.

10. **How** we plan to show our offerings as code libraries (plug & play), integration services, deployment services, standalone product

This provides the modular style of our services, how they are arranged like in a website, how they are able to complement each other, how these can be ordered as SKU and how these are listed in e-commerce web site as GST items

11. **What** market do we sell and who are the possible buyers interested in our offerings?

Usually these are overseas clients, mainly from the western world, the Americas, EU, & UK.

Buyer segments are academicians, MS/ PhD students, SME sector and few MNCs that have relevant projects. We don't serve clients who are not sure and not confident in our services. We have a large set of distracters who offer similar

services however mostly they have no proper organization structure, no licensed engineers, no proper decision makers and many we have kept the under observations. Money is not all the thing that can buy anything.

12. **How different** are our offerings than competitors?- w.r.t vendor lock-in, technology agnostics, deployment, integration with AWS, Azure and how to plan to send updates

We extensively use open source, products that have less proprietary content, resources that avoid heavy licensing, easily deployable, and have hooks for future works.

E.x : Python, R, Scala, Bash, Linux, Mono, Eclipse, Java , JVM. These have very less restrictions and a good support. We use IaaC (Infrastructure as Code) , templates, GITHUB for release management and open standards and IDE that can be used by most developers

13. **Describe** the types of projects we have handled, size, team, complexity, assets delivered and QA

AI / ML projects, Data Science projects, team sizes 1 -100, deals worth $100 million, varying complexity from student to licensing and production level debugging and resolutions.

14. **Did** anyone third party assess your work, graded and feedbacks

P.Eng, ACS, Engineers Australia, Engineers Canada, - mostly overseas, nothing much local, feedbacks w.r.t English, presentation, communication, delivery, quality of work and client satisfaction

15. If **offered** a project work how best will you deliver, what capabilities you possess, your experience

Years of experience, skills, trainings, self-confidence, repeat success, earlier projects, well – documented, Professional Engineer, Licensed, sell the pitch deck, clarity on the need for visas, relocation time,

16. How do you **relate** your academics/ trainings to your work and this project

Experience gained in doing the same thing, repeating the success, mentoring experience, multi culture, open culture, working as individual, as part of team, communication skills, inter-personal skills, language skills, international skills

17. What is your **typical work** during the project, plans to report work, manage issues and communicate with your clients, partners and your team

Morning chorus, b/fast, emails, reminders, handling main jobs, meet with the team, resolve issues, standup meetings, attending backlogs, work on delivering the most up to date build, change requests, install tools, test and run a mini integration test, revisit business needs, technical needs, pass QA, get approval from peers, and present to client the day's / week's deliverable, share any feedbacks, adopt to situations and keep doors open for next day

18. How is **data privacy** , GDPR achieved

We have private and open repositories, we use cloud hosted dev platforms (of your choice), and we don't use emails. SMS, pen drives, Ext HDD in job areas, / working PC/ laptops have either no hard disks or have virtual disk that are terminated after session logoff. We have over all assets except any of our owned assets, IP rights; we follow good governance, anti-plagiarism and data retention policies

19. What are your **USP/ differentiators**?

We are honest, licensed, we do what we are being told, don't waste your time and co-operate in any disputes or disagreements. We don't take up matters to higher authorities unless it violates norms

**20.** What are your company's **legal standing formalities**

We are a startup / LLP firm, have lawyers, accountants, engineers, IT team, partners who can help

**For further details please contact**

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