

Reenal Boddul

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PROFESSIONAL SUMMARY:

- Equipped with scientific in-depth knowledge and good interpersonal skills.
- Quick learning abilities to adapt to current technology and market need.
- Skilled in crafting chatbots and virtual assistants.
- 6+ years of experience in Software Development and 3 years' experience as Data Scientist.
- Self, motivated, dedicated, a team-oriented individual who strives to collaborate with others to reach the best possible outcome with a flexible mindset.
- Skilled with translation of business language components to tech and vice versa. Experienced in use case scoping from business requirements.
- A visionary technologist with hand on experience in applying Data Science techniques like Data Analysis, machine learning, Deep learning, Convolution Neural Network, Computer vision to business and engineering problem.

WORK EXPERIENCE:

- **Data Scientist- Mainly.AI** – Stockholm, Sweden.
03/2021 – Till Date
- **Consultant- Dewberry** - Uttar Pradesh, India.
12/2019 – 02/2021
- **Consultant- BlackPond Global Digital Systems Private Limited** - Bangalore, India.
08/2018 – 02/2019
- **Developer Intern - Social Profile AB** - Stockholm, Sweden.
09/2017 – 06/2018
- **Consultant- CITROSOFT** - Stockholm, Sweden.
12/2016 – 02/2017
- **Software Engineer - Twinprime labs Software Development PVT LTD** - Pune, India.
03/2014 – 09/2015
- **Software Engineer - Cloud It Solution PVT LTD** – Pune, India. *06/2012 – 10/2013*

SKILLS:

- **Languages:** Python, PHP, Core Java
- **Development Tools:** Jupyter Notebook, VSCode, PyCharm, Sublime Text, NetBeans, Postman, google colaboratory, Anaconda, Spyder IDE, Docker
- **Libraries / Frameworks:** Sklearn, NumPy, Pandas, Scikit-learn, Keras, Flask, TensorFlow, PyTorch, lifeline, Evidentlyai, Streamlit, Codelgniter, Yii, Slim, LangChain. Huggingface
- **Key Skill:** Project Scoping ,Project Management (JIRA) ,Data cleaning ,Data Visualization ,Data Analytic ,Database Management ,MLflow ,Web Scraping ,ML Algorithms ,Model Development ,MLOps ,Building CI-CD pipeline using GitHub Action ,Building Docker Image ,Statistics ,Agile methodology ,OpenAI (GPT-3/4) Api integration ,MVC design patterns ,All phases of the software development life cycle (requirements, design, testing, release, support) ,End-to-end ML project lifecycle ,stay up to date with the latest developments in GENAI. Create state-of-the-art AI agents. Prompt Engineering, NLP, Different embedding Method.
- **Cloud / Services:** Azure, AWS, AWS ECR, Cloud Foundry, Heroku, Hugging Face Spaces
- **Operating Systems:** Windows, Linux/ UNIX
- **Server:** Apache Tomcat, Nginx
- **Database:** MYSQL, PostgreSQL, MongoDB, Pinecone
- **Version / Configuration:** Git, Bitbucket, TortoiseSVN
- **Algorithms:** Machine Learning algorithms Regression, Classification, Clustering, Neural Networks, Survival Analysis, Deep Learning with Keras, PyTorch Neural Network, Predictive Modelling, Clustering & Classification.
- **Web Technologies:** JAVA SCRIPT, HTML, AJAX, JQUERY, Rest API development, FastAPI
- **Soft Skills:** Analytical thinking, problem-solving, teamwork, effective communication and collaborating with cross-functional teams.

EDUCATION:

- M.TECH (Industrial Mathematics with Computer Applications), Pune University, India, 2011.
- B.Sc. (Electronics), Pune University, India, 2008.

CERTIFICATE COURSES:

- Deep Learning Master (<https://ineuron.ai/>)
- Stats For Data Science (<https://ineuron.ai/>)
- DAC (Diploma in Advance Computing) from C-DAC, Pune, India (<http://cdac.in/index.aspx>)

OPEN-SOURCE CONTRIBUTION:

•GenAI Stack is an end-to-end framework for the integration of LLMs into any application.

(<https://github.com/aiplanethub/genai-stack>)

•PyCaret, an open source, low-code machine learning library in Python

PROJECTS:

•**Project Name: Asset** (<https://www.asset.healthcare/>)

Technical Specification: Python, NumPy, Pandas, Scikit-Learn, Keras, Machine learning algorithm, Statsmodels, lifelines, Rest API using Flask, Matplotlib and Seaborn.

Description: Objective is to find child will develop Type 1 diabetes or not and when.

Responsibility:

- 1)Requirement gathering and convert business requirement to use case.
- 2)Understand various data file and convert unstructured data to structured data which can be used for model building i.e., Data Wrangling.
- 3)Sparse, complex, and large data handling and data analysis (EDA) to identify data trends, patterns, and insights. develop crisp visualizations.
- 4)Solution designing, Model Design and Development Multitask temporal approach (MTTM).
- 5)Evaluating model performance using metrics like accuracy, precision, recall, and F1-score, Optimizing model.
- 6)Building docker image and containerized application.
- 7)Check various SOTA Paper feasible for our solution and implement.
- 8)To routinely communicate metrics, progresses and other key indicators and explain complex technical concepts to both technical and non-technical stakeholders.

•**Project Name: Alistair Project**

Technical Specification: Python, NumPy, Pandas, Scikit-Learn, Keras, Tensorbord, Matplotlib

Description: Predict future humidity

Responsibility:

- 1)Involved in requirement gathering, data collection from sensor.
- 2)Cleaning and preprocessing raw data to prepare it for analysis.
- 3)Choose algorithm is best to solve this problem.
- 4)Time series Model building ISTM seq to seq time series forecasting.
- 5)Hyper parameter tuning with keras tuner to make it robust

•**Project Name: False Alarm Detection System**

Technical Specification: Python, NumPy, Pandas, Scikit-Learn, Rest API using Streamlit, Plotly.

Description: Further detection of false alarm using various machine learning techniques

Responsibility:

- 1) Data analysis and data cleaning on extracted data
- 2) Model building.

3) REST APIs using Flask.

•**Project Name: Occupancy Prediction**

Technical Specification: Python, NumPy, Pandas, Scikit-Learn, Machine learning algorithm, Statsmodels Rest API, Matplotlib.

Description: Occupancy prediction of room

Responsibility:

- 1)Involved in requirement gathering, data collection and analysis
- 2)Data cleaning pipeline on extracted data
- 3)Model building time series forecasting using ARIMA
- 4)REST APIs using Flask for consuming model
- 5)Building Docker Image and containerized application.
- 6)Client Communication

•**Project Name: Bhagavad Gita Chatbot (POC)**

Technical Specification: Python, LangChain, Flask, Llama2, Pinecone, LLM

Description: Create chat bot to provide relevant responses to commonly asked questions about the Bhagavad Gita

GitHub: (<https://github.com/reenal/geeta-chatbot>)

Responsibility:

- 1)Explore Llama2 another open-source and closed source model and lead the development and enhancement of AI Conversational Agents, leveraging your expertise in Large Language Models (LLMs). Utilize LLMs to enhance our AI agents' reasoning and decision-making capabilities.
- 2)Data extracted data create chunk, natural language processing.
- 3)Find different vector embedding techniques and different embeddings model
- 4)Checking out vector databases Store semantic index on Pinecone vector DB
- 5) Create end to end web app using flask and create docker image for deployment

ACHIEVEMENTS:

- Published my success story in WINDS Pune (<https://wimldspune.wordpress.com/2022/04/02/reenal-boddul/>)
- Published my success story in Ineuron ([https://halloffame.ineuron.ai/achiever/Reenal-Zampal-\(Boddul\)-AtQRPU](https://halloffame.ineuron.ai/achiever/Reenal-Zampal-(Boddul)-AtQRPU))
- Become Cricket coach level 1, Certificate by ICC (<https://www.linkedin.com/in/reenal-zampal-boddul-29273826/details/certifications/>)
- Mentor 20 people till date and Speaker

LANGUAGES:

Fluent: English, Marathi, Hindi, Telugu

Beginner: Swedish