



PRABIR GHOSH

S/O: Late Sadhan Kumar Ghosh

Vill: Pumlia, P.O+P.S: Chakdaha,

Dist: Nadia, Pin: 741222,

[Near B.S.N.L Telephone Exchange]

Phone: +91 993 337 2215

E-mail: mymail.prabir@gmail.com

Website: <https://prabirsoft.github.io/>

GitHub: <https://github.com/prabirsoft>

Linkedin: <https://www.linkedin.com/in/prabir-ghosh/>



Objectives & Previous Experience

I have a five years of experience in machine learning and software engineering with a bigger dream in "Artificial Intelligence". Currently, I work as a Senior Software Engineer at DataInfoCom Software Solutions Pvt. Ltd. (Ayata Perspective Solutions), improving products and developing software's for our customers by using CNS and machine learning, standing up machine learning analytical tools, creating and maintaining models, and on boarding compelling new data sets.

Work Experience

DataInfoCom Software Solutions Pvt. Ltd. (<https://ayata.com>)

May, 2016 - Present

Job Roles & Responsibility

- Design, develop, troubleshoot and debug algorithms developed for Machine Learning/Statistical Models.
- Design and develop code for Prediction, Prescription, Optimization and other Machine Learning/Statistical techniques
- Design and Develop Responsive UI for clients to show the statistical results along with database integration.

Here I worked on different domains and projects and also our product. Some brief about my work is given below.

Benefit Calculation on IP Insurance (AMP Life):

The purpose of these projects are to accurately calculate the premium with an objective to redesign the data model and accurately calculate the income protection or IP benefit calculation

using AI with the help of natural language processing with an objective to remove the manually intensive process of identifying/interpreting the relevant policy terms and conditions applicable for a given claim.

Technology used: Python(NLTK, textblob, PyPdf2), Cobol, Oracle, Gitlab, AWS, Vue.js, Git, Jira, Gitlab, GitHub, GitHub Actions, Shell Script and others

Fraudulent claim detection in Insurance domain (MetLife):

A cost-effective adjuster automated (AI) assistant tool, which is a part of a claim management platform to replace human interaction interviewing medical bill reviews, diary writing and fraudulent claims detection. The machine learning technologies as applied to insurance ratemaking, especially with respect to policies that cover events or losses with a long tail over time. More broadly, the present application relates to the prediction of time sequences with a long tail, and aggregations of such sequences. This software helps to predict whether a claim is going to be an Independent Medical Examination and Independent Medical reviews beforehand and simultaneously warranted for a claimant, whenever a medical bill is received. To detect if a claimant is fraudulent or not on a daily basis, the software is predicting the probability of a claimant, being fraudulent or not triggered by daily data update, regardless of a medical bill is received or not for the claimant. In next to detect if a claimant is warranted for medical management tool (IME/IMR) or not the software is capable enough to predict the probability of a claimant warranted for medical management tool with at least one medical bill, triggered by daily data update. Roles & Responsibilities: Responsible for direct communication, with Customer side, understanding end to end requirements, data analysis, data Mining, model build, Full-stack development, database design, CI/CD deployment and team management.

Technology used: Python (LSTM, Gradient Boost Decision Tree, Random Forest), PySpark(Libraries), AWS, Vue.js, Git, Jira, Gitlab, Shell Script and others

MD & A:

Currently, we are working on MD & A project of MetLife. It aims at developing an Application that helps the user to extract visualize & generate reports based on their expenses and income details across several region of USA and this involves this features like

- a) Report can be generated based on quarter year and regions.
- b) User can upload invoices and generate report for current date.
- b) User can also update their old report with new invoices and download the report as pdf.

Technology used: Python(NLTK, textblob,PyPdf2), AWS, Vue.js, Git, Jira, Gitlab, Shell Script and others

Claim Litigation:

In parallel, we are working on claim litigation project of MetLife. It aims at developing a UI tool that helps the user to visualize claims related details across all the states of USA. It involves a lot of things like-

- a) Whether a claim has been filed for the lawsuit.
- b) Different cost metrics that are involved in any claims, like Attorney fees, Adjuster cost, Total Actual cost (Indemnity and Litigation cost).
- c) A model that predicts the different cost metrics associated with a claim that has been moved to lawsuit. Besides it also provides a confidence metric for each claimant prediction.
- d) Detailed insights of each claimant associated with a claim.
- e) Robust search engine that helps client to quickly understand their data. For example by giving the name of an attorney or an adjuster we can bring up all the associated claims that has been handled by the corresponding person.

The whole project involves understanding the insurance domain, data wrangling, data analysis, identifying the features for modeling.

Technology used: Python (logistic regression, MLP, Tree based gradient Boost), PySpark (Libraries), AWS, Git, Jira, Gitlab, Shell Script and javascript, jquery, vue.js and others.

Loss Trends:

Loss Trends is an engagement to improve Met Life Auto & Home's ability to accurately project lost trend using our rate making Software. The goal of the engagement is to deliver meaningful measurable business value in the immediate term by improving the accuracy of loss trend projection a function of time. The main challenge was to understanding the domain, joining the internal and external data and data analysis, following strictly the security policy rule. Keeping, the Environmental factors and other potential influencer that may contribute to or help explain lost cost frequency and/or severity, in mind, We have added different external data (Census, weather, CPI, Traffic, Gas along with the engineered features) to robust our forecasting model that will forecast the pure Premium (Loss cost) for different coverage type(Body Injured, Collision, Property Damage Liability, Owner Property, Condo Property etc.) for different Metropolitan Statistical Area, in Quarterly Time granular. An interactive User interface that will help Met Life to understand loss trend over time.

Technology used: Python (MLP, LSTM, CNN, kNN), Pyspark(Libraries), AWS, Git, Jira, Gitlab, bamboo, Shell Script and others

MetaAlgorithm(CNS):

I have worked for our product of developing a Central Nervous System (CNS) using a rich and evolving set of Meta Algorithms that govern and control algorithms (for analyzing videos,

sounds, images, texts and numbers) to make decisions about the future using ALL data (not just numbers or texts). Just as the CNS of our body governs every movement we make even though it is not outwardly obvious (just see our left arm moving, for example), Ayata's software is trying to mimic the same set of functionalities. We don't necessarily compete on developing a better image algorithm or a better sound algorithm, we focus on refining the CNS with richer Meta Algorithms. Involved in the research and development of CNS.

Technology used: Python (Different ml libs), PySpark(Libraries), AWS, Git, Jira, Shell Script and others

OilAndGas:

Ayata is working in Oil and Gas domain from last couple of years for several company like EP, Shell, Chevron, CLR and others. We provide predictive result of oil, gas and water production for different timelines, identify opportunities to improve drilling timelines that involve analyzing the domain, data mining, EDA, data preprocessing, model building and optimization. Here I helped my team to build the data visualization application that not only help them understand about their data but also I helped them to provide predictive and prescriptive solutions for our clients.

Technology used: Python (Pandas, Numpy, Scikit-Learn, NLTK, Spacy) Backbone/Marionette, Git, Jira, Gitlab, Shell Script and others.

Skills

- **Programming languages:** C, C++, C#, Java, Javascript, JQuery, Python, PL/SQL, Dart
- **Operating Systems Known:** Windows 7/8/10, Linux(Ubuntu)
- **Database Knowledge:** Microsoft SQL Server, Oracle SQL Server, Postgress, Cassandra, SQLite, MySql
- **Frameworks Knowledge:** ASP.NET, J2EE, Android, Python Flask, Rest, Backbone Marionette, Spring, Vue, Vutify, D3, Mapbox, Material Design, Flutter
- **IDE's used:** Visual Studio, VS Code, Sublime, Anaconda, STS, Eclipse, Android SDK
- **DevOps:** CircleCI, bamboo, Github actions, travisCI.
- **Extra Skills:** MS Office, DTP, Cobol, Jira, AWS, Azure, Shell Scripting
- **Python:** Flask, Scikit-Learn, Pandas, Numpy, PyTest, Django, Tensorflow, PySpark, NLTK

PyDbTool - <https://pypi.org/project/PyDbTool/> # Created by me

Education

Qualification	Institute	Board / University	Year of Passing	Major / Specialization	Aggregate % / CGPA
MCA	Techno India-Hooghly	W.B.U.T / M.A.K.A.U.T	2016	Computer Application	8.18
B.Sc Computer Application	Santipur College	Kalyani University	2013	Computer Application	71.1%
Higher Secondary(12)	Chakdaha Ramlal Academy	W.B.S.C.V.E.T	2010	Computer Application & P.C Maintenance	87.00%
Madhyamik(10)	Chakdaha Ramlal Academy	W.B.B.S.E	2008		67.00%

Academic Projects

Name of Organization/Institution	Project Name	Project Details	Frameworks	Role & Responsibility
Santipur College	Offline Handwritten Signature Authentication System	A System and Technique to Authenticate Handwritten Signatures	VB.NET	Project Lead, Development
Ardent Collaborations	e-Voting System	A System for online voting using e-governance	ASP.NET	Project Lead, Development
Techno India Hooghly	myCountry	An unique system to identify and track citizen of an entire country similar like Adhar in India	ASP.NET	Project Lead, Development
Techno India Hooghly	DRCA	A Study on network establishment using mobile devices in a challenged scnerio	Android & ASP.NET	Project Lead, Development

Achievements

Participate in First International Conference on Computational Intelligence: Modeling Techniques and Applications (CIMTA-2013) - <https://www.sciencedirect.com/science/article/pii/S2212017313006075>

Personal Profile

Name	Prabir Ghosh
Father's Name	Late Sadhan Kumar Ghosh
Date of Birth	24 Nov 1992
Sex	Male
Nationality	Indian
Marital Status	Single

DECLARATION:

I hereby declare that all the above information is true to the best of my knowledge and belief.

Place: Chakdaha
Date: 27-05-2021

Prabir Ghosh