

# Rucha Sawarkar

Data Scientist  
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## Summary

Data Scientist professional with nearly 3.5 years of experience in the domain of Artificial Intelligence. Strong expertise in the field of Deep Learning and Natural Language Processing. Actively seeking for full - time opportunities in the field of Data Science.

## Education

Year	Degree/Certificate	Institute	CGPA/%
2017 - 2019	M.Tech	National Institute of Technology, Raipur	9.0/10.0
2011 - 2015	B.Tech	Veermata Jijabai Technological Institute, Mumbai	8.4/10.0
2011	HSC(XII)	U.D.J.C, Achalpur	97.17%
2009	SSC(X)	Subodh High School, Achalpur	97.53%

## Technical Skills

- **Languages and Libraries:** Python,R,SAS,MySQL,HTML, NLTK,Keras,Sklearn,,Flask,OpenCV
- **Technologies:** Azure ML, Amazon Sagemaker, MLOps
- **Courses:** Natural Language Processing\*, Deep Learning\*, Machine Learning

(\* - Ongoing Courses/MOOCs)

## Work Experience

- **Data Scientist, 3K Technologies, Bangalore, India** (May '20 - Present)
  - Currently contributing in 3KT's Major Project Anomaly Detection and Predictive Maintenance
  - Anomalies may potentially indicate problems such as structural defects, errors, etc.Developed an end-to-end solution to detect anomalies in IoT Sensor / Factory Data
  - For **Predictive Maintenance** developed an end-to-end solution to predict Normal, Mid, Short, Urgent. Level of fault occurrence to prevent asset failure for reducing downtime & increase production.
- **Junior Data Scientist, Antworks, Bangalore, India** (Oct '19 - April'20)
  - Contributed to 2 of the Antworks premiere Machine learning Project
  - **Email Classification Agent (Smart Mails)** is powered by Natural Language Processing which understands and Clas-sifies user's email in user defined categories using machine learning Algorithms. I am involved in building the end-to-end Integration of Training and Prediction Model
  - **Document Identification** is a classification engine which uses Deep Learning techniques to categorize and understand Image based documents like ID cards , Visiting cards etc
- **Solution Integration Consultant, FICO, Bangalore, India** (Jan '19 - Sept'19)
  - Worked as an "INTERN" in FICO's CCS Project, which handles the customer engagement services for banking activities and checks **Fraud detection** for the End Users
  - It is an Automated response system that monitors the user activities and Triggers automated responses for user queries using IVR, Email and **Chatbot** powered by Machine Learning algorithms
- **System Engineer, IBM, Bangalore, India** (July '15 - July'17)
  - Worked as System analyst , for a Telecommunication Platform which involved roles like **Data Preprocessing** of telecom-munication data using **R programming language**
  - Our Preprocessing activities enhanced and helped to improve the Data Scientist to keep the integrity of the application and make it more robust for the bulk users

## Research and Publications

- **Use of machine learning to predict the Suitable developer for newly Reported Bugs**  
**Published in:** 2019 IEEE 5<sup>th</sup> International Conference for Convergence in Technology (I2CT)
  - Developed a new methodology using natural language processing to predict appropriate developers
  - The solution in this paper analyses a bug from bug repository while simultaneously performing load balancing for developers
- **Use of machine learning to correctly determine the bug estimation time for newly reported bugs**  
**Published in:** 2019 IEEE 5<sup>th</sup> International Conference for Convergence in Technology (I2CT)
  - A new algorithm is proposed to determine bug estimation time with the help of machine learning algorithms
  - Average bug estimation time of a new developer is predicted based on the bug estimation time of already existing users

- **Use of data mining techniques to determine Severity and Priority using for a Newly Reported Bug**  
**Submitted in:** 2020 IEEE 6<sup>th</sup> International Conference for Convergence in Technology (I2CT)
  - Severity and priority of newly reported bugs by considering correlation between them is determined using different machine algorithms in R and Python programming languages.
  - Experimental analysis predicts severity and priority for newly reported bugs using a single algorithm which eliminates the use of separate techniques for both

## Projects

- **COVID19 Predictions** (June'20)
  - A time series analysis is performed to predict the number of coronavirus patients in upcoming
  - The application is built with user parameters giving flexibility to select country and number of days for prediction of corona virus cases.
  - **Technology Used:** ARIMAX, grid search technique
- **Document Identification** (March'20)
  - A fully developed product which identifies different types of documents using image and text based techniques
  - Any type of documents like Aadhar card, Pan card, Driving license can be identified based on user requirement
  - **Technology Used:** Inception transfer learning, pytesseract
- **Email Classification Agent** (Dec'19)
  - An Artificial Intelligence enabled email management solution which is proficient automatically
  - The solution offers email insights and inferences that helps in accelerating analysis and interpreting user sentiments
  - **Technology Used:** Natural Language processing,SVM,LSTM
- **Business Card extraction** (Oct'19)
  - A NER(Named Entity Recognition) solution.
  - It extracts data like name of the person, company name, address, contact number from the Business card
  - **Technology Used:** NLTK, Spacy,Regular Expressions,CRF(Conditional Random Field)
- **Visual Search for fashion Websites** (July'19)
  - Developed an integrated platform to combine data from all fashion websites using web scraping
  - It is a visual search engine which uses image processing and deep learning techniques.
  - When user uploads an image, this solution helps find similar images from Multiple websites linked to the search engine
  - **Technology Used:** CNN(Convolution Neural Network)

## Honors and Awards

- Awarded **Gold Medal** for outstanding academic performance in **NIT Raipur** (2019)
- Secured **1<sup>st</sup>** position in a National level **Inter NIT** Yoga Competition held at **NIT Agartala** and **NIT Nagpur** (2017-2018)
- Awarded as "**Best Sports Player**" from sports committee, NIT Raipur (2018)