Rehan Guha

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OBJECTIVE

To work in an organization where culture of freedom and working for initiatives is ensured, facilitating my contribution through thoughts and action to the company's vision and thus achieve self-development by playing a significant role in building the organization.

SKILLS

- Python
- Machine Learning
- Deep Learning
- Neural Network
- Data Analysis
- Image Processing
- Azure
- Java
- C++
- AngularJs
- Algorithm
- Innovation
- Computer Security
- Research
- OOP
- Programming

EXPERIENCE

Associate Software Engineer at Accenture

Chennai, India
January 2017 – September 2018

- **Bank of America (Quartz Development)** ***(Full Time, Managed team size of 2)***

P*roblem:* We had multiple tools of different technologies, and we require proficient resource to use the tools. Project was people driven.

A*ction:* I made a platform for Environment Management team where all the automated scripts (for multiple technologies) & report generation tools will be placed & used from a single integrated platform with a simple UI.

R*esult:* Saved a lot of manual effort, anybody with the access permission can use the tool can execute it using a simple UI with less or no knowledge of the technology, Project became Process driven.

- **Self Learning Credit Approval System *(Part time, 3 months)***

***P**roblem*: Rule based decision for approval of Credit which lead to loss of business.

***A**ction*: I was solely responsible for the development of the Machine Learning Algorithm using H2o.ai, scikit-learn, Python.

***R**esult*: Accenture took this as a product and is demonstrated to the client for identifying bad loans / missed opportunities, enable the bank to mitigate potential risk and opportunities.

- **AI Model Based Risk Management *(Part time, 4 months)***

***P**roblem*: High level of manual effort from Compliance officer for Risk Management to detect valid and type of alerts raised

***A**ction*: I made an AI based Model using DeepLearning to detect the Alert and type of alert which is performed by Compliance officer. (Azure, Python, H2o.ai)

***R**esult*: Dependency on the compliance officer will decrease, model will be capable to figure out new patterns in the generated alert.

- **Ship and Air Cargo Routing *(Part time, 2 months)***

***P**roblem*: Ship and Air Cargo Routing for Logistics with high traffic and and more than expected loading time.

***A**ction*: Used key concepts of algorithm and process Design to optimize the whole system.

***R**esult*: Decreased the time for processing more than 20 seconds which improved the performance and saved huge money.

- **Digital Content and Transaction Management using an Artificial Intelligence (AI) based Communication System *(Part time, 3 months)***

***P**roblem*: There were no existing intelligent model to predict Disputes of a transaction of a financial institute.

***A**ction*: I have designed a machine learning model which predicts both the dispute and the dispute category of a financial transaction given to the model using using a life dataset.

***R**esult*: Accuracy of the model with the live dataset came to be around 92%. The project is *applied for patent by Accenture* and will be sold as a product to the clients. This offering is expected to Reduce Annual Billing Disputes Volume by ~30% i.e. ~330K, lowering Ops Cost by USD 15.3 million and enhancing Customer Experience by guarding them from such dispute prone transactions.

- **Routing System for Car Pool and Drop for the Employees *(Part time, 3 months)***

P**roblem*: Accenture uses semi automated algorithm for deciding the routed for office cab service. The final sorting was done manually from data sorted by area pin-code generated from the automated third party algorithm.***

***A**ction*: Created an software using Google Map and some grouping algorithm with considering total cars, total no of seat in each car, last drop should be a male for women security.

***R**esult*: Reduced the entire manual effort form sorting and assigning of the cabs.

Bounty Hunter at HackerOne

(Part Time)
January 2017 – Present

Found and Resolved Bugs for:

1) Zomato

Creator at PixRead

(Research Project)
December 2016 – Present

An Innovative Research Project which helps the users to extract the text from an Image using OCR and other image processing algorithms and search through different Popular Search Engines. Technologies used - OpenCV, Google Tesseract OCR, etc..

Website Developer & SEO Professional at Saltlake Institute of Engineering & Management (SLIEM)

(Part Time)
August 2015 – February 2015

Develop and Update Organization Website using Wordpress.
SEO for Google of the Organization Website. Maintaining NSDC(India) Database

PUBLICATIONS

Digital Content and Transaction Management using an Artificial Intelligence (AI) based Communication System

Patent

1st August 2018

Application No.: 201811027773

Intellectual Property India

Application No.: D18-224/03655-PR-IN

United States Patent and Trademark Office

Prime Numbers – 1st One Lac

Dataset

June 2016

10.13140/rg.2.1.1875.1609

Research Gate

Grid Searching – Novel way of Searching 2D Array

Research

January 2016

10.7753/ijcatr0501.1005

International Journal of Computer Applications Technology and Research

Biometric Ticketing System

Patent

335/KOL/2014

18th March 2014

Intellectual Property India

Data Security- Multi-Layer Folder Lock Hiding

Patent

488/KOL/2013

30th April 2013

Intellectual Property India

Biometric Voting Machine

Patent

1320/KOL/2014

17th December 2014

Intellectual Property India

EDUCATION

Institute of Engineering & Management (Kolkata, India)

Bachelor of Computer Application (H) (B.C.A.) / Computer Application

July 2013 – July 2016

Handwriting Recognition using Histogram of Oriented Gradients (H.O.G.)

Mar 2016 – Apr 2017

"Xtract" is a computer vision project which focuses on Handwritten Digit recognition using Histogram of Oriented Gradients. Histogram of Oriented Gradients is a feature descriptor which I have used to recognize the input image and save the data on a file.

- **16-Bit Operating System with Dedicated Interpreter (BASIC)**

Aug 2015 – Dec 2015

"RGJREX O.S." is a 16-Bit Operating System with BASIC Interpreter. I have used Assembly Level Language 16-bit/win32 (NASM) to develop the above project. The above project uses the concept of Stack Data Structure as storage memory of my operating system

Saltlake Institute of Engineering & Management (SLIEM)

(Kolkata, India)

Internship / C# .Net Certification

June 2015 – July 2015

- Online Job Portal using C# .Net

Findings:-

During the project work the following key points are to be noted :

1. The common security flaws of a website and how to handle sensitive data of the users.
2. How large databases are designed and as well as handled.
3. The common errors which occur during the implementation of the business logic of online job portal.

Learning:-
During the course of project, there was a lot of learning for me as I was able to have a holistic view about developing of the website especially the security aspect of the website as well how to set up the server and manage web files. I learned the importance of teamwork and also that persistent efforts pay good results. I improved my soft-skills by presenting the website to the professors. Further, I learned to adapt quickly, to the changing requirements of my work.

Delhi Public School, Ruby Park (Kolkata, India)

AISSCE (All India Senior School Certificate Examination) / Computer Science
March 2012 – April 2013

Delhi Public School, Ruby Park (Kolkata, India)

AISSE (All India Secondary School Examination) / General
March 2010 – April 2011

AWARDS

Accenture Celebrates Excellence
August 2018

Category - Innovation (Team)

Asset Harvest Contest
March 2018

1st Place

Accenture Celebrates Excellence
February 2018

Category - Innovation (Individual)

Accenture Celebrates Excellence
September 2017

Category - Client and Customer (Team)

Demonstration :: Indian Army -Bengal Area Sig Coy
November 2013

Data Security- Multi Layer Folder Lock Hiding