Samarjit Pal

8th semester , Final year
Computer Science and Engineering
Indian Institute of Information Technology , Dharwad

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ACADEMIC DETAILS

Examination	University	Institute	Year	CPI/%
UnderGraduate Specialization:	*Computer Science and Engineering*			
Under Graduation	IIIT Dharwad	IIIT Dharwad	2016-present	9.32
Intermediate Specialization:	*PCM + (Electronics)*			
Intermediate	BJB college	BJB Jr. College	2015	85.67
Matriculation	BSE,Odisha	SSVM,Nayagarh	2013	92.3

FIELDS OF INTEREST

- Algorithms and Combinatorics, Probability theory, NLP and Machine Translation, Computer Vision

EXPERIENCE

- **Software Engineer intern at Traveloka**
  (Supervisors :Mr. Chandra Gaurav Sharma (Jan-Apr'20) and Mr. Himansu Jain (Apr-Jun'20))
  - I was part of the traveloka experience backend team which is one of the core products of traveloka .
  - Developed several components of highly multi threaded distributed system.
  - Designed and implemented some APIs to reduce manual processing in communication with the database. Contributed for infrastructure development of some of the services.
  - Followed a set of good code conventions with necessary design patterns keeping SOLID principles in toolbox to produce high quality code.

    Tech used : Java, Spring, MongoDb, AWS, Terraform, ReactJs

- **ML Engineer intern at Techurate Systems**
  (Supervisor :Mr. Sandeep Kumar Jun-July'19)
  - Objective :Built a system to recommend bank products which are relevant to users.
  - Performed exploratory analysis on dataset for feature engineering to extract most important features . Used xgboost as multiclass classifier to obtain minimal logloss. After extracting most important features did feature engineering to build the decision tree.

    Tech used : Python, Flask, XGBoost, R, GoogleAPI

ACADEMIC PROJECTS

- **Sparsity in HighDimensional Data***
  (Guide:Dr. Lakshman Mahto undergoing)
  - Objective Analysis of sparsity in higher dimensional data and increase efficiency of models by sparse representation
  - Designed the architecture of a deep learning model with sparse representation of high dimensional feature vectors to achieve better accuracy using comparatively smaller model.

    Tech used : Python, Tensorflow

- **Efficient Insurance System Using Blockchain**
  (Guide:Dr. Rajendra Hegade Apr'19)
  - Objective Provide a secure system for insurance using blockchain.

- Built a system to implement efficient insurance system which is more reliable, secure, transparent then the present system used BLOCKCHAIN technology as it will help the system be more reliable and transparent. The system is created to connect peers, namely customer, insurance, police, service centre shop and to deploy a fully working system so that the peers can do successful transaction among themselves.

  Tech used : HyperLedger Fabric, NodeJs, Docker swarm

- **Online Cinema Booking System**
  (Guide:Dr. Neha Bharil Dec'18)
  - Objective :Built a fully functional Online Cinema ticket booking system
  - Built an serverside application for online cinema ticket booking handling multiple queries with the use of timestamp-ordering protocols and develope an UI and backend server using Mysql and PHP . Analyzed using different timestaping protocols for getting less response time .

    Tech used : Html, Css, PHP, Bootstrap, MySql, XAMPP

SELF PROJECTS

- **Multiplayer CardGame**
  (May'20)
  - Objective : Design, implement and deploy a multiplayer card game with embedded chat board to play real-time card game with four players in a game board
  - High-level design of backend server was done using proper design patterns and implemented following the SOLID principals and object calisthenics.
  - Python is used for the BE.Using SocketIO messaging, interaction of players is implemented. Used Flask to create the server. Server is deployed in heroku with a proper CI/CD pipeline supporting dev app, staging app and production app. SDLC is used to provide high quality service.
  - Frontend is developed using ReactJs. ReactBootstrap is used to support responsive web pages. Containerization was done using docker. Go script is used to start the FE server.

    Tech used : Python, SocketIO, Flask, ReactJs, ReactBootstrap, Docker, Go, CI/CD

- **Sudoku Solver**
  (Dec'18)
  - Objective : Solve Sudoku from an Image
  - Built a Digit detection tool in Python and trained the model using CNN which recognizes the digit from an input Image of a sudoku board and forms the grid then used backtracking algorithm to solve and show the result.

    Tech used : Python, OpenCv

- **Hand Gesture Recognition Tool**
  (Feb'17)
  - Objective : Perform tasks using Hand Gesture recognition .
  - Built a Gesture recognition tool in Python which records lateral hand movements and perform tasks associated with respective gesture such as toggle apps, control volume, and other features.

    Tech used : Python, OpenCv

TECHNICAL SKILLS

- **Languages** : C, C++, Python ,Java

- **Cloud Infra** : AWS , Amazon SDK , Terraform , Docker

- **Database** : Postgres , MongoDb, MySQL, SQLite, MicrosoftSQLServer

- **Data Analytics** : R, MATLAB, Numpy

- **Web** :HTML, CSS, JavaScript, PHP, NodeJs, ReactJs

- **Frameworks** : OpenCV, NS-3 , Wireshark , Android Studio ,QtCreater,XAMPP,ArduinoIDE

Other Activities

- Secured 1st rank in Blockchain hackathon hosted by SandboxStartups

- Secured 1st rank in Regional Coding Compition hosted by **Samsung and Codechef**

- Attended Smart Governace IOT workshop by Prof. H S JAMADAGNI (DESE , IISC Bangalore)

- Participated in various quiz contests including Tata Crucible Mysore regionals