

RAJARSHI CHATTOPADHYAY

I am a Software Engineer having 4 years experience: internship on web application development, permanent job on application development and support¹, personal and academic projects on applied machine learning and Big Data management and analysis², and self-learned system design fundamentals. As a Big Data enthusiast, I have undertaken online training earning digital badges³ on Big Data technologies to stay relevant. I also take interest in designing highly scalable intelligent systems.

Currently searching for a software engineer position that allows me to develop and improve software and build intelligent systems to positively impact the global community.



View this CV online at
likarajo.github.io/cv

View my resume online at
likarajo.github.io/cv/resume

EDUCATION

- 2020 | 2018** **M.S. in Computer Science, Intelligent Systems**
University of Texas at Dallas 📍 Dallas, TX, USA
 - Data Structures, Big Data, Machine Learning
- 2014 | 2012** **B.Tech. in Electronics**
West Bengal University of Technology 📍 Kolkata, WB, India
 - Object Oriented Programming, Embedded Systems, Microprocessors, Digital Electronics
 - Thesis: Design and Development of a RISC Processor based on Harvard Architecture

PROFESSIONAL EXPERIENCE

- 2019** **Software Engineer Intern, IT**
Tesla 📍 Fremont, CA, USA
 - Infrastructure automation: Automated infrastructure access requests and brought down the turnaround time by 90%.
- 2019** **Software Development Engineer Intern**
Coptart 📍 Dallas, TX, USA
 - Developed and maintained web application modules and REST microservices for billing and payments operations.
- 2019 | 2018** **Administrative Assistant, Student-worker**
Office of Graduate Education, UT Dallas 📍 Dallas, TX, USA
 - Developed template to aid faster review of dissertation documents. Performed data maintenance, workshop arrangements and social media engagement.

CONTACT

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🐙 github.com/likarajo
🔗 likarajo.github.io
📞 (469) 380-2696

TECHNICAL SKILLS

Lang: Java, Python, Scala
Web: Spring, Spring Boot
Big Data: Hadoop, Spark
DevOps: Git, Jenkins, Docker
Database: SQL, NoSQL
Front End: HTML/CSS/JavaScript
Cloud: AWS S3 EC2 EMR, Elastic

Made w/ [pagedown](#) 
Last updated on 2019-11-04

- 2018
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2014

Software Systems Engineer
 IBM

Kolkata, WB, India

 - Developed and maintained client application back-end. Automated DB updates and app-queue monitoring. Received IBM Best Emerging Techie Award in 2016.
- 2013
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2012

Embedded Systems Engineer Apprentice
 Hi-Q Solutions

Kolkata, WB, India

 - Developed embedded solutions using Finite State Machines, Assembly Language, and VHDL.
- 2013

Associate Engineer Apprentice
 Bharat Sanchar Nigam Ltd.

Kolkata, WB, India

 - Analyzed requirement and designed a college campus network for an Institution.
 - Rank first with 96.95% score in Vocational Training on Communication Systems.
- 2013
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2012

Associate Engineer Apprentice
 Siemens VAI Metal Technologies

Kolkata, WB, India

 - Prepared hook-up diagrams for installation of automation instruments at client factory location.
 - Prepared container diagrams for holding instruments using CAD

PROJECTS

- 2019

CV
 Personal

 - My Online CV
 - R, Markdown, Pagedown
 - likarajo.github.io/cv
- 2019

Twitter Sentiments
 Academic

 - A Spark Streaming application for live tweets sentiment analysis.
 - Scala, SBT, Spark, Twitter API, Zookeeper, Kafka, ElasticSearch, Logstash, Kibana
 - likarajo.github.io/twitter_sentiments
- 2019

Face recognition
 Personal

 - Image recording, preparing image data, and training with pre-built Haar-cascade classifier to recognize face.
 - numpy, cv2, python, Haar-cascade classifier
 - likarajo.github.io/face_recognition

I have developed multiple side projects on various technologies based on the knowledge gained through academic course work and personal effort

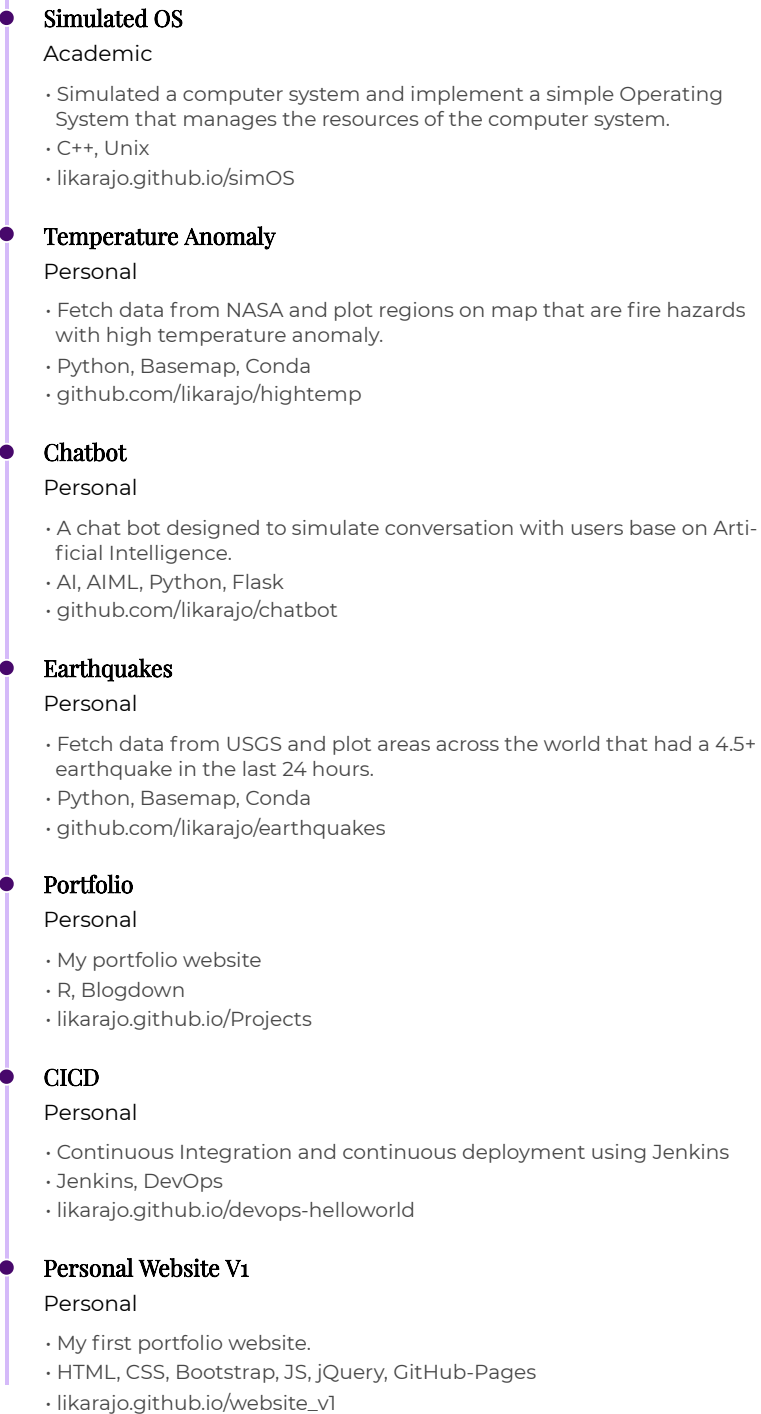
Have a look at my projects here:


 github.com/likarajo
 likarajo.github.io/Projects

- 2019 ● **Breast Cancer Diagnosis**
Academic
- Model built for diagnosing and predicting Breast Cancer with Support Vector Machine using Wisconsin Breast Cancer diagnostic data set.
 - Python, Scikit-Learn, Support-Vector-Classifer
 - likarajo.github.io/breastcancer_diagnosis
- 2019 ● **House Price Prediction**
Academic
- Analyzing house price data from Kaggle and building a model using the data which can be used to predict the final price of a house.
 - Python, Feature-engineering, AWS S3 EC2 EMR, Spark, Scala, Regression
 - likarajo.github.io/house_price
- 2019 ● **Movie Search**
Academic
- Movies Search based on self-implemented TF-IDF values and Cosine-Similarity computed using movie plot summaries data taken from CMU Movie Summary Corpus.
 - Spark, Scala, TF-IDF, Cosine-Similarity
 - likarajo.github.io/MovieSearch
- 2019 ● **Airport Rank**
Academic
- Rank top airports based on self-implemented Page Rank values computed using their connections data from Bureau of Transportation Statistics.
 - Spark, Scala, Page rank
 - likarajo.github.io/AirportRank
- 2019 ● **Recommender System**
Academic
- A recommender systems built using Collaborative filtering on ratings data. Used Alternating least squares (ALS) algorithm to learn the latent factors.
 - Scala, Spark, Collaborative-Filtering, Alternating-Least-Squares-Algorithm, Latent-factors
 - github.com/likarajo/recommender
- 2019 ● **Car Analysis**
Academic
- Classify cars as automatic or manual. Predict mileage of cars.
 - Spark, Scala, Support-Vector-Classifer, Decision-Tree, Logistic-regression, Linear-Regression
 - github.com/likarajo/car_analysis

- 2019 ● **News Topic Modelling**
Academic
- Find out topic of news from CNN news data
 - Spark, Scala, Latent-Dirichlet-Allocation
 - github.com/likarajo/topics
- 2019 ● **Crimes Analysis**
Academic
- Finding the crimes cluster in a region using Kmeans clustering as silhouette.
 - Spark, Scala, Kmeans-clustering
 - github.com/likarajo/crimes
- 2019 ● **Dimensionality Reduction**
Academic
- Built a Support Vector Machine (SVM) Classifier model with Stochastic Gradient Decent (SGD) for Principal Component Analysis and Spectral Clustering
 - Python3, SVM-Classifer, Principal-Component-Analysis, Spectral-Clustering
 - github.com/likarajo/dimensionality_reduction
- 2019 ● **Tetris Game**
Academic
- A tetris UI game built as part of Computer Graphics curriculum
 - Java, AWT, Swing
 - github.com/likarajo/tetris
- 2019 ● **Sentiment of a sentence**
Academic
- Used dataset of labelled sentences from Yelp, Amazon, IMDB to learn a model and use the same to analyze the sentiment of new sentences.
 - Scala, TF-IDF, Classification
 - github.com/likarajo/sentence_sentiment
- 2019 ● **Sentiment on US Airline**
Academic
- Analyzing sentiment on US Airlines with Logistic Regression, Random Forest classifier, Naive-Bayes classifier using tweets data on US Airline.
 - Scala, Spark, Classification
 - github.com/likarajo/usairline_sentiment

- 2019 ● **Social Network Analysis**
Academic
- Analysing a social network of users liking each other's posts created in a graph structure.
 - Spark, Scala, GraphX
 - github.com/likarajo/social_network
- 2019 ● **Personal Website V2**
Personal
- Version 2 of my portfolio website.
 - HTML, CSS, Bootstrap, JS, jQuery, GitHub-Pages
 - likarajo.github.io/website_v2
- 2019 ● **Personal Website V3**
Personal
- Version 3 of my portfolio website.
 - JS, Gatsby, Netlify, GitHub-Pages
 - likarajo.github.io/website
- 2019 ● **Ensemble Methods**
Academic
- Self-implementation of Bagging and Boosting on Decision Tree ID3 algorithm and comparing it with Scikit Learn implementation using Mushroom Data Set.
 - Python3, Decision-Tree, ID3, Bagging, Boosting, Scikit-Learn
 - github.com/likarajo/decision_tree_ensemble
- 2019 ● **Decision Tree ID3**
Academic
- Self-implementation of Decision Tree ID3 algorithm and comparing it with Scikit Learn implementation using MONK's Problems and Tic-Tac-Toe Endgame Data Set.
 - Python3, Decision-Tree, ID3, Scikit-Learn
 - github.com/likarajo/decision_tree
- 2019 ● **Titanic Survival**
Personal
- Titanic survival prediction with Decision Tree classifier using dataset from Kaggle Competition.
 - Spark, Scala, Decision-Tree-Classifer
 - github.com/likarajo/titanic_survival
- 2019 ● **Simulated OS with Demand Paging**
Academic
- Simulated a computer system and implement a simple Operating System with simulated virtual memory demand paging scheme.
 - C++, Unix
 - github.com/likarajo/simOS_demandPaging

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- 2019 ● **Simulated OS**
Academic
- Simulated a computer system and implement a simple Operating System that manages the resources of the computer system.
 - C++, Unix
 - likarajo.github.io/simOS
- 2019 ● **Temperature Anomaly**
Personal
- Fetch data from NASA and plot regions on map that are fire hazards with high temperature anomaly.
 - Python, Basemap, Conda
 - github.com/likarajo/hightemp
- 2019 ● **Chatbot**
Personal
- A chat bot designed to simulate conversation with users base on Artificial Intelligence.
 - AI, AIML, Python, Flask
 - github.com/likarajo/chatbot
- 2019 ● **Earthquakes**
Personal
- Fetch data from USGS and plot areas across the world that had a 4.5+ earthquake in the last 24 hours.
 - Python, Basemap, Conda
 - github.com/likarajo/earthquakes
- 2019 ● **Portfolio**
Personal
- My portfolio website
 - R, Blogdown
 - likarajo.github.io/Projects
- 2018 ● **CICD**
Personal
- Continuous Integration and continuous deployment using Jenkins
 - Jenkins, DevOps
 - likarajo.github.io/devops-helloworld
- 2018 ● **Personal Website V1**
Personal
- My first portfolio website.
 - HTML, CSS, Bootstrap, JS, jQuery, GitHub-Pages
 - likarajo.github.io/website_v1

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- 2018 ● **911Calls**
Personal
- Data Science and visualization on 911 calls data.
 - Python3
 - github.com/likarajo/ds911calls
- 2017 ● **Kinship**
Personal
- A tool that finds out what are the related words (kins) to a particular word that twitter users have tweeted.
 - Python3, Twitter API, TKinter
 - likarajo.github.io/kinship
- 2017 ● **Rock Paper Scissor game**
Personal
- A One-player rock paper scissor game built using Python
 - Python3, TKinter
 - likarajo.github.io/rock-paper-scissor
- 2017 ● **Clock**
Personal
- An online clock that can be customized; can be reused in any web page.
 - HTML, CSS, JS
 - likarajo.github.io/clock
- 2016 ● **Brick Breaker Game**
Personal
- A One-player brick breaker game built using Javascript
 - HTML, CSS, JS
 - likarajo.github.io/brickbreaker
- 2015 ● **MQ Statistics Tools**
IBM
- Automated daily queue status monitoring and reporting for the core application eliminating manual effort.
 - Unix, Bash
 - likarajo.github.io/mqstats
- 2015 ● **MQ Reporting Tools**
IBM
- Developed a Java UI for daily queue status report generation for the core application on a single click eliminating manual effort.
 - Java, SWT, Unix, Bash
 - likarajo.github.io/mqreporting



WRITINGS

- 2019 ● **Summer 2019 Internship Experience**
Personal
- An article based on my learning outcomes and experience during my Summer internship at Copart
- 2019 ● **Functional and Object Oriented Programming**
Personal
- An article based on my learning outcomes from attending and informational session on Functional Programming.
 - Functional-Programming, OOP
- 2018 ● **Containerization**
Personal
- A beginners guide for Creating and Publishing Docker Image for a Python app.
 - Containerization, Docker
- 2018 ● **Big Data in Agriculture**
Personal
- My thoughts on use of big data in agriculture in the modern modern world.
- 2018 ● **CICD**
Personal
- A guide to learn the use of Jenkins for Continuous Integration and Continuous Deployment of projects.
 - Containerization, Docker, Jenkins, DevOps
- 2014 ● **RISC Processor using Harvard Architecture**
Academic
- Based on my Bachelor's Thesis: Overview of designing and developing a Reduced Instruction Set Computing microprocessor, using Harvard Architecture.
 - RISC, Harvard-Architecture, Microprocessor, Assembly-language



DIGITAL CREDENTIALS

- 2019 ● **IBM Cloud Kubernetes Service**
IBM
- Cloud, Containers, Kubernetes, Orchestration
- 2019 ● **Hadoop Data Access - Level 1**
IBM
- Big Data, Hadoop, Hbase, Hive, SQL

I blog about what I learn and believe to let others benefit from it and collaborate.


Have a look at my writings here:

[LinkedIn Articles](#)
 likarajoblogs.wordpress.com

I like to keep myself up-to-date with the latest technologies, through online training and certifications.

Have a look at my earned digital credentials here:

youracclaim.com/users/likarajo

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- 2019 ● **Hadoop Foundations - Level 2**
IBM
 - Big Data, Hadoop
 - 2019 ● **Hadoop Administration - Level 1**
IBM
 - Big Data, Flume, Hadoop, Oozie, Sqoop, Zookeeper
 - 2019 ● **Docker Essentials**
IBM
 - Cloud, Containers, Docker
 - 2019 ● **Spark - Level 1**
IBM
 - Big Data, Hadoop, Spark
 - 2019 ● **Big Data Foundations - Level 2**
IBM
 - Big Data, Hadoop, Spark
 - 2017 ● **IBM Blockchain Essentials**
IBM
 - Blockchain, Distributed Ledger Technology, Hyperledger, Ledger, Open Source
 - 2017 ● **OCAJP - SE8**
Oracle
 - Java, Application Development, JDK, Lambda Expressions
 - 2017 ● **Hadoop Programming - Level 1**
IBM
 - Big Data, Hadoop, MapReduce, Pig
 - 2017 ● **Hadoop Foundations - Level 1**
IBM
 - Big Data, Hadoop
 - 2017 ● **Big Data Foundations - Level 1**
IBM
 - Big Data, Hadoop
 - 2016 ● **Enterprise Design Thinking Practitioner**
IBM
 - Design, Empathy, Experience Design, Ideation, User-Centered Design, User-Centric, User Experience, User Research, UX



KNOWLEDGE TRANSFER

- 2017 ● **On-the-job training**
IBM 📍 Kolkata, WB, India
- Provided on-the-job training on application system architecture and database overview.
 - SQL, Java
- 2013 ● **Workshop Presentation**
Narula Institute of Technology 📍 Kolkata, WB, India
- Delivered presentation on computer architecture in National seminar by IETE.
 - Assembly Language, Microprocessor Intel 8085, Microcontroller Intel 8051
- 2013 ● **Workshop Presentation**
Narula Institute of Technology 📍 Kolkata, WB, India
- Delivered presentation on wireless telecommunication in Industrial Educational Program at college.
 - IPV4, IPV6, Cellular Communication



LINKS

- 1: <https://likarajo.github.io/WorkSamples>
- 2: <https://likarajo.github.io/Projects>
- 3: <https://www.youracclaim.com/user/likarajo>

I am passionate about sharing my knowledge with others. I believe that to teach is to learn twice. I have delivered at workshops at my college and at work.