HARI SHRAWGI

Phone: (+91) 9584233799
shrawgi.hari@gmail.com
www.linkedin.com/in/harishrawgi/
https://harishrawgi.github.io

EDUCATION

M. Tech	Indian Institute of Science Artificial Intelligence	May 2021
B. Tech	National Institute of Technology Raipur Computer Science & Engineering Performance: 9.61/10.0 (perfect 10 in three semesters)	May 2018
AISSCE	Krishna Public School (CBSE) Science stream Performance: 89.6% (improvement)	May 2013
AISSE	Krishna Public School (CBSE) Performance: 9.0/10.0	May 2011

INDUSTRIAL EXPERIENCE

R&D Engineer, Broadcom (CA Technologies) July 2018-April 2019

Worked as an R&D Engineer for the product *CA Single Sign-on* under the security division. It is a product that serves most of the Fortune 500 companies and is deployed on the biggest scales of enterprise software in the world. Following are the highlights of my contribution to the product and the company:

- Designed and implemented a feature to support Cross Origin Resource Sharing across SSO. It allows customers to use different domains without the browser restricting the request-response flow.
- Designed a prototype to implement a ledger system to track new hire onboarding. The ledger system was based on blockchain technologies.

RESEARCH EXPERIENCE

Research Intern, Australian National University, Canberra June-July 2017
Mentor: Prof. Brett Lidbury

- Applied machine learning and data mining to biomedical research data
- Identified new bio-markers for diagnosis of CFS/ME neural disease
- Developed a model to evaluate the performance of various pathological labs across Australia

Research Intern, National Institute of Technology Raipur May-July 2016
Mentor: Prof. Akanksha Sharaff

- Developed a model to classify Texts into generic classes
- Implemented it using clustering coupled with Topic Modeling
- Evaluated the results using measures such as Entropy and Dunn Index

PUBLICATIONS

Journal Paper (under revision)

Shrawgi H., Sisodia D., 2019. Convolution Neural Network Model for Predicting Single Guide RNA Efficiency in CRISPR/Cas9 System. *Chemometrics and Intelligent Laboratory Systems*.

Book Chapters

Sisodia, D.S., Borkar, R. and Shrawgi, H., 2019. Performance Evaluation of Large Data Clustering Techniques on Web Robot Session Data. In *Machine Intelligence and Signal Analysis* (pp. 545-553). Springer, Singapore.

Sharaff, A., Verma, A. and Shrawgi, H., 2018. Generic Document Classification Using Clustering, Centrality, and Voting. In *Proceedings of the International Conference on Computing and Communication Systems* (pp. 85-94). Springer, Singapore.

Conference Papers (Peer-reviewed)

Sharaff, A., Shrawgi, H., Arora, P. and Verma, A., 2016, December. Document Summarization by Agglomerative nested clustering approach. In *2016 IEEE International Conference on Advances in Electronics, Communication and Computer Technology (ICAECCT)* (pp. 187-191). IEEE.

PROJECTS

CNN based guide prediction for CRISPR/Cas9 gene editing tool May 2018

B. Tech major project under guidance of Dr. Dilip Singh Sisodia

- Developed a CNN model to predict best SgRna guides to be used by CRISPR for a given gene
- The model was trained on over 400,000 data points from the GenomeCRISPR dataset
- It outperformed other machine learning based models which relied heavily on feature engineering

Bio-marker identification for Chronic Fatigue Syndrome July 2017

Part of the research internship under Prof. Brett Lidbury

- Used Neural Networks coupled with ROC curve analysis to discover biomarkers for clinical diagnosis of CFS
- Substantiated the results with a systematic review on 60 NCBI research works and articles
- The new biomarkers can lead to detection of CFS through pathological tests which was not feasible before

PROJECTS (CONTD.)

Ori Finder Jan 2017

Program to automatically search for Ori - the origin of replication

- Used Python to implement the GC-Skew approach for searching Ori
- Successfully tested the application by finding DnaA boxes for E. Coli, Salmonella Enterica and Vibrio Cholerae

UNICEF Pregnancy Assistant App (Pregacare) Feb 2016

Winning android app for antenatal care assistance for pregnant women

- Implemented text-to-speech for visually impaired or illiterate women
- Also incorporated the Prime Minister's scheme for free antenatal care to support financially weak patients
- Designed Agglomerative clustering-based model to detect regions which require focused development in antenatal care

AWARDS AND ACHIEVEMENTS

All India Rank 6, GATE (CS) 2019 March 2019

Achieved an all India rank of 6 among more than 125,000 applicants

UNICEF Special Award, Codeutsava Feb 2016

In recognition of developing best solution in Maternal & Newborn Health theme

COMMUNITY SERVICE

Inspire Foundation, Raipur 2016

[Co-founder and Education lead]

Worked with the District Education Officer of Raipur to teach 950 underprivileged students throughout the district

Unnat Bharat Abhiyan 2017

[Volunteer]

Taught biology and mathematics to rural students in a remotely located govt. school