

Harsh TRIVEDI

7-A, Swarajnagar Society, Ambawadi, Ahmedabad, India.
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AREAS OF INTEREST	Information Retrieval, Machine learning, Natural Language Processing, Artificial Intelligence, Algorithms, Data Structures and Web development
LANGUAGES	Ruby, Python, R, Java, C, Javascript and HTML
TOOLS & TECHNOLOGIES	Ruby on Rails, MongoDB, Redis, PSQL, jQuery, AJAX, \LaTeX , Weka, Python NLTK and Scikit-learn, Git, AWS S3 and EC2

WORK EXPERIENCE AND INTERNSHIP

DEC'13-JUL'14	Technical Lead at Areysun Online Pvt. Limited, Gandhinagar Areysun is a DAIICT based startup (now sold out to Appbase.io, USA). It was an IOS / Android app which allows people to share their expressions anonymously. Worked on 'Ruby on Rails' on the backend with multiple data stores like Postgresql, Redis, and MongoDB. Was majorly responsible for the technical architecture and most of the server side code at Areysun. Worked part time from DAIICT and later full time in summer from incubation provided at Zone Startups, BSE, Bombay.
MAY'15-JUL'15	Research assistant at IRLab - DAIICT, Gandhinagar Worked on developing a new statistical approach for syllabification of words written in Gujarati language which yielded a performance of 98.02% accuracy. Worked on government funded project Cross Lingual Information Access (CLIA) under the guidance of Dr. Prasenjit Majumder to evaluate the performance of Cross Lingual Search Engine 'Sandhan'.

EDUCATION

2012-16 (EXP.)	Dhirubhai Ambani Institute of Information & Communication Technology, Gujarat, India - B. Tech in Information and Communication Technology CGpa: 7.88/10.0
COURSES:	<i>Introduction to Algorithms, Data Structures, Computer Organization, Database Management System, Computer Networks, Operating Systems, System Software, Models of Computation, Information Retrieval, Data Mining, Introduction to Computational and System's Biology, Quantum Computation</i>
2011-12	New Samarth, Gujarat, India - 12 th grade, HSc, Gujarat State Board Percentile: 93.63
2009-10	M.K High School, Gujarat, India - 10 th grade, SSc, Gujarat State Board Percentage: 86.00

PUBLICATION

DEC'15	Harsh Trivedi, Aanal Patel, Prasenjit Majumder, <i>"A New Approach to Syllabification of Words in Gujarati", Springer, LNAI 9468</i> Built a mathematical model for syllabification using probabilistic calculations in a systematic way. Bootstrapped the training data to a reasonable size using CRF approach and tested our technique on it. Achieved a result of 98.02% syllabic accuracy. Paper accepted at an international conference 'Mining Information and Knowledge Exploration (MIKE 2015)', IIIT-Hyderabad and published in Springer - Lecture Notes in Artificial Intelligence, in Dec'15.
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ACADEMIC PROJECTS

JAN-APR'15	Class Connect
Course:	<i>Software Engineering</i> Developed an online platform called ClassConnects - a Ruby on Rails based web-portal where students of different colleges / school can share, manage and collaborate their academical resources in hierarchical folder system with ease. Went through entire software development life cycle starting from conceptualization, implementation, testing to deployment and used agile model for the whole process.
Tools Used:	Ruby on Rails, Nginx, Remote Servers, Postgresql, Redis, HTML, Javascript, CSS

JUL-AUG'15 Theme based Clustering of Tweets [↗](#)

Course: *Data Mining*

Analyzed various ways of clustering tweets based on their themes. My task was to simulate and validate the results of approaches proposed by some related papers on a common tweet dataset and provide my views and comparisons on it.

Tools Used: Python NLTK and Scikit-learn, Ruby, R, Weka

AUG-SEP'15 Hinglish Sentimental Analysis [↗](#)

Course: *Data Mining*

Created a self tagged training dataset (6000 tweets) of Hinglish (Romanized hindi as used on social platforms) of tweets and performed sentimental analysis on it. Best performance achieved was 74.03 % precision and 73.02 % recall.

Tools Used: Python NLTK and Scikit-learn, Ruby, R, Weka

SEP-OCT'14 Planet Wars - the game [↗](#)

Course: *Introduction to Computer Networks*

Developed a real time multiplayer strategy game "Planet Wars -the Game" which can be played on any selected map with the opponent player / bot. Used client-server model and TCP/UDP Sockets for communication over LAN network.

Tools Used: Ruby, Shoes-GUI framework

OCT-DEC'15 Simulation of Quantum Random Walks [↗](#)

Course: *Quantum Computation*

Simulated a program to visualize the quantum random walks on any general graph. Using this, attempted to research for a kind of graph on which hitting time could be less than in the classical case.

FEB-MAR'13 Dynamic Allocator - Malloc [↗](#)

Course: *System Software*

Improvise a dynamic memory allocator written in C taking it from 30% efficiency to 91% efficiency using explicit free list and some other tweaks.

EXTRA CURRICULAR ACTIVITIES

- **Served an NGO**

Worked for Tribhuvandas Foundation [↗](#) (an Amul Initiative) by staying in the rural areas for one month to study the tobacco consumption pattern in the village and to educate people about the harmful effects of tobacco consumption.

- **Organizing team member of FIRE 2015 conference**

Developed a new website [↗](#) with easy content management system present on the admin interface for Forum for Information Retrieval and Evaluation (FIRE 2015) as an organizing team member.

- **Member of GDG DAICT**

Organized local as well as international meetups and tech events as a member of Google Developer Group (GDG-DAICT) for 2 years, where I co-worked with software industry professionals to bring the new technology and its awareness to the people of Gandhinagar.

- **Coordinator, RagnaRock, Synapse**

I was offered this position in my first year. Synapse is the largest techno-cultural festival in DAICT.

PAST AWARDS AND ACHIEVEMENTS

- 1st prize in National as well as State competition of Mental Arithmetic (ALOHA)
- 3rd prize in National drawing competition held by Department of Post , India
- 1st prize in drawing competition held by Forest Department , Gujarat.