Saatvik Shah

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EDUCATION

NIT JAIPUR
B.Tech in Computer Science
Expected May 2016 | Jaipur, India
CGPA: 8.36/10
Rank : 11/100

SATHAYE JUNIOR COLLEGE
HSC
May 2012 | Mumbai, India
Electronics as a Vocational Subject
Board %: 85/100

BOMBAY SCOTTISH SCHOOL
ICSE
Comp. May 2010 | Mumbai, India
Board %: 93/100 | Rank : 25/300

LINKS

Github:// **saatvikshah1994**
LinkedIn:// **saatvikshah**

SKILLS

PROGRAMMING
Python • Java • R • Matlab
C • C++ • HTML/CSS
Technologies:
Android • Django • Git
MySQL • wxPython

DOCUMENTATION
LaTeX • ReStructured Text
Markdown • IPython Notebook

COURSEWORK

UNDERGRADUATE
Machine Learning
Digital Image Processing
Artificial Intelligence
Concurrent and Parallel Programming
Object Oriented Programming
Operating Systems
Data Structures and Algorithms
Design and Analysis of Algorithms
Databases and SQL

SOCIETIES/CLUBS

Zine   2012-Present
Research & Robotics Club,
NIT Jaipur

Entrepreneurship Club   2012-2013
NIT Jaipur

House Captain 2008-2010
Bombay Scottish School

RESEARCH EXPERIENCE

MIXED SCRIPT INFORMATION RETRIEVAL
July 2015 – October 2015 | Zine Research Lab, NIT Jaipur
- Relatively new research problem involving language identification and named entity recognition across 9 different languages(English + 8 Indic).
- Shared task in the Forum for Information Retrieval Evaluation conference, coordinated by **Microsoft Research**, where we stood **2nd**.
- A live **Django implementation**(link) has been setup and hosted on Heroku.

EEG PATTERN RECOGNITION
October 2013 – April 2015 | Zine Research Lab, NIT Jaipur
- Research problems involving pattern recognition of **P300 and Motor Imagery** signals from raw EEG using Signal Processing, Stochastic Algorithms on a Multilayer Neural Network Architecture, Ensemble Learning and Deep Learning
- An online GUI connecting a BCI headset, with the EEG recognition algorithms was also setup and tested.

DATA ANALYTICS WORKBENCH FOR EDUCATIONAL DATA
May 2014 – July 2014 | Fundamental Research Group, IIT Bombay
- Involved structuring massive logs of data, arranging into databases, mining relevant details and creating interactive visualisations from data generated on **EdX**.
- Developed a Django application, built on a Hadoop stack, implementing the above functionality. Worked as Ekalavya intern under aegis of Dr. D.B. Phatak.

PROFESSIONAL EXPERIENCE

OPTIMIZATIONS IN L3 MULTICAST
May 2015 – July 2015 | Arista Networks, Bangalore, India
- Improved port-aggregation handlers and reduced reprogrammability on chip
- Understanding, programming and running Product/Breadth tests
- Amongst 24 interns selected from 10 colleges(IITs/NITs/IIITs)

LOCATION SENSITIVE GEAR MAINTENANCE APPLICATION
July 2013 – Dec 2013 | North East Frontier Indian Railways
- System for centralizing gear maintenance records based on location sensing
- Information recorded on the mobile application is stored on an online database, from where the web application automatically prepares tables and reports
- **Patent**(link) published and implementation across 20 stations(2 complete) is ongoing

PUBLICATIONS

PUBLISHED
Agarwal, Saurabh Kumar, Saatvik Shah, and Rajesh Kumar. "Classification of mental tasks from EEG data using backtracking search optimization based neural classifier." *Neurocomputing* (2015). (link)
Agarwal, Saurabh Kumar, Saatvik Shah, and Rajesh Kumar. "Group based Swarm evolution algorithm (GSEA) driven mental task classifier." *Memetic Computing* (2015). (link)

IN PRESS
Saatvik Shah,Vaibhav Jain,Sarthak Jain,Anshul Mittal,Jatin Verma,Shubham Tripathi and Dr. Rajesh Kumar. Hierarchical classification for multilingual language identification and named entity recognition
Proceedings of the Forum for Information Retrieval Evaluation, 2015. (link)

IN REVIEW
Saatvik Shah,Anirudha Kumar and Rajesh Kumar. A robust framework for optimum feature extraction and recognition of P300 from raw EEG. *Neural Computing and Applications*, Submitted : 05/2015. (link)

AWARDS/COMPETITIONS

Year	Result	Event
2015	2nd/10	Shared Task, FIRE Conference
2015	top 15%/2300	TFI Restaurant Revenue Prediction Challenge, Kaggle
2014	top 5%/3000	Selection for Ekalavya Internship, IIT-Bombay
2014	3rd/15	Swiftday Application Development Competition
2013	Patent	Centralized Maintenance Monitoring
2013	3rd/20	Image Processing Robotics Contest, Tryst, IIT-Delhi