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Somin Wadhwa

CONTACT INFORMATION

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EDUCATION

Bachelor of Technology in Computer Science & Engineering 2014 – 2018
Maharaja Agrasen Institute of Technology CPI: **79.2%**
Guru Gobind Singh Indraprastha University, Delhi, India

RECENT EXPERIENCE

- **Indraprastha Institute of Information Technology, Delhi (IIIT-D)**
  Research Intern July, 2018 - Present
  Complex Systems Lab, Center for Computational Biology June 2017 - March 2018
  Advisor: Dr. Ganesh Bagler
  - **Current Work:** My current work focuses on creation of *"BitterSweet: A resource to explore and predict taste information in small molecules"*. (http://cosylab.iiitd.edu.in/bittersweet)
  - **Previous Work:** During my undergraduate studies, we worked on devising new methods to predict phenotypic side effects of drugs using existing data (SIDER4). The work was culminated in the form of a research article and the code was documented & open-sourced on Github (link).
- **All India Council for Technical Education (AICTE), Govt. of India**
  Research & Development Intern October 2017 - March 2018
  Advisor: Dr. N.H. Siddalingaswamy (Director, AICTE)
  - **Work:** Lead a team of 5 and with a project budget of $4600. We analysed AICTE's employment statistics dataset and developed dynamic analytic dashboards to aid AICTE in granting approvals to higher education institutions.

PUBLICATIONS

Wadhwa S, Gupta A, Dokania S, Kanji R, Bagler G (2018) A hierarchical anatomical classification schema for prediction of phenotypic side effects. PLOS ONE 13(3): e0193959. https://doi.org/10.1371/journal.pone.0193959

SELECTED PROJECTS

All of my projects (including the following ones) are be available on github.com/sominwadhwa

Visual Question Answering through Modal Dialogue: A two semester long B.Tech project based on the application of *Malinowski et al.* on v2 of theVQA dataset. Idea is to design a CNN + LSTM based model whose outputs are passed through a fully connected followed by softmax layer to improvise the overall accuracy on v2 release of VQA. The entire methodology is documented under a blog- **Visual Question Answering through Modal Dialogue**

Kaggle-Repository*
A collection of kernels (written in IPython Notebooks & scripts) designed from datasets obtained from Kaggle for practise as well as competitions. These include implementations of typical Machine Learning algorithms on a range of datasets.

TheTwitterPolice
Analysis of law enforcement activity on Twitter in India. Collected data from five different police social handles (BeautifulSoup & Selenium), stored them in a database (MongoDB), analysed (sentiment-analysis, time-series etc) & displayed the results graphically in the form of a web-app (flask application deployed on heroku).

OTHER ACTIVITIES

- Won Smart India Hackathon (April 2017) I was the Team Lead of a six-member team under the mentorship of Dr. Sambuddha Roy over a period of three months to build a decision support system using Machine Learning to improvise AICTE's handbook approval system for technical institutions in India for SIH – 7200+ teams pan India competed in a 36-hour Hackathon organised by Government of India. As a part of the winning team for AICTE, I'm associated with All India Council for Technical Education (Ministry of Human Resources & Development, Government of India) in a fully funded project (**Budget: 2.93L**) for taking our prototype forward over the period of 6-8 months beginning October 2017.
- **Secretary**(2015-2016) 'Association of Computing Machinery (ACM)- Student Chapter' at M.A.I.T

- **Presentation** Gave an oral talk on, "Study of Random Numbers & their applications in computational physics using Monte-Carlo method" at the 27^{th} IUPAP Conference on Computational Physics, **IIT Guwahati** on 2-5 December, 2015.
- **Interned** at a national NGO 'Umeed - A drop of Hope' (NGO Reg: S/792/DIST.SOUTH/201) and participated in Project- Knowledge for All (KFA).
- **Rotaractor** (2014-2015) Member of 'Rotaract Club of Delhi Akash' where our team jointly organized several large scale events like 'CanSupport's Walk of Life (8th Feb 2015) - Fight against cancer.', 'Patrika - A paper recycling drive.'