Abhishek Shirgaokar

Data Scientist

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Objective

- ❑ Admission into a research-oriented M.S. program to study subjects like linear algebra, calculus, optimization techniques, probabilistic inference etc. in further detail to understand current data modelling and inferencing techniques so as to develop better, intelligent, data driven applications.
- ❑ Conduct meaningful research in Deep Learning techniques for computer vision and natural language.

Experience

Aug '17 - Present — **OnlineSales.ai** / *Data Scientist*

- ❑ **Industry Benchmark** - Generated a robust data driven solution for estimating values for average cost-per-click, conversion-rates etc. across geographies, product types and advertising channels.
- ❑ **Feed Enhancer** - Developed a scalable Python app that uses Jinja2 templating to enhance product titles for advertising using techniques like word2vec, **unsupervised** **syntactic tokenization**, etc to improve impression share of shopping advertisements.

Jun '17 - Aug '17 — **Sokrati** / *Data Science Intern*

- ❑ Developed a completely unsupervised Deep Learning solution for **Visual Search** based on a three-way Siamese network architecture for apparel recommendation.

Oct '16 - Present — **Research Assistant to Prof. D.T. Mane**

- ❑ Worked on building resilient Deep Learning computer vision models requiring limited labelled datasets. Noteable projects :
  - ❑ **Vehicle Traffic Density detection** (Demonstrated live on local city roads)
  - ❑ MNIST like **"Marathi" digit classification** on a dataset having a very limited amount of labels. (Marathi is the 19th most spoken language in the world).

Aug '16- Feb '17 — **I.B.M. (India Software Labs)** / *Intern*

- ❑ Contributed from the ground up to "**IBM Watson Customer Engagement - Procurement Intelligence**" which is a cognitive solution to assist strategic purchasers to find answers to questions about a company's supply chain transactions.
- ❑ It entailed building a Natural Language Interface to DataBase (NLIDB) system using Apache OpenNLP, Apache Solr and Node JS.

Education

'13 - '17 — **Pune Institute of Computer Technology** / Bachelor of Engineering (B.E.), Computer Engineering

- ❑ C.G.P.A. : 3.68/4.0

'11 - '13 — **Loyola High School and Junior College** / Higher Secondary Certificate (H.S.C.), Maharashtra Board

- ❑ 84.17 % , Computer Science : 183/200

'00 - '11 — **Loyola High School and Junior College** / Secondary School Certificate (H.S.C.), Maharashtra Board

- ❑ 89.09 % , Mathematics : 145/150

Skills

- ❑ Highly proficient in Python and its libraries (numpy, pandas, dask, keras, tensorflow, pytorch, scipy, scikit-learn, pymc, flask, Django, matplotlib, bokeh)
- ❑ C, C++, Java, Matlab, Octave, Shell, Lex, YACC, Esoteric languages like Brainfuck.

Projects

- ❑ **Click Through Rate (CTR) prediction over shopping advertisement images** - A Deep Learning solution that uses a Convolutional Auto-Encoder to identify features in product images that increase its clickability thus providing a metric to select a images with high CTR.
- ❑ **Visual Search** - Implemented a completely unsupervised and upgraded variant of "Learning Fine-grained Image Similarity with Deep Ranking". Hacked a way to implement the network and triplet loss in Keras (among the first solutions available on the internet)
- ❑ **Traffic Density Detection** - A Convolutional Neural Network based model trained on hours of crowd sourced local city-road footage.
- ❑ **XOdia** - Developed framework to host an online 2 player code vs code game in Django.
- ❑ **CPU and HDD temperature monitoring script** - A Linux Standard Base (LSB) Init script

Certifications and Extracurriculars

- ❑ Successfully completed several MOOCs on Coursera, YouTube etc. on topics ranging from Machine Learning, Deep Learning, Bayesian Statistics, Probabilistic Graph Modelling, Computer Vision etc.
- ❑ Organized, as well as participated, in multiple technical events, hackathons, paper presentations at IEEE Region 10 (Asia-Pacific) level.
- ❑ Received special appreciation from city municipal commissioner, Mr. Kunal Kumar, for performance in A National Smart City Hackathon, organized by Persistent Pvt. Ltd.

Find references and details here : https://ashirgao.github.io/about/