Dhruv Kumar

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EDUCATION

Indian Institute of Information Technology Allahabad, U.P., India — Jul 2012- Jun 2016
B. Tech.(Hons) in Information Technology — GPA: 8.68 / 10.00 (9.07 - Last 2 years)

SKILLS

Languages- C, C++, Python, Java, Javascript, HTML, PHP and SQL.
Libraries- Tensorflow, Keras, Gym, Scikit-Learn, NLTK, Pandas, matplotlib, OpenCV and d3.js
Frameworks- AngularJS, Node.js, MongoDB, Flask, Spring, MyBatis and Struts
Key Interests- Machine Learning, Predictive Modelling.

EXPERIENCE

Arcesium(DE Shaw Group), Hyderabad, India — Jul 2016-Present
Software Engineer
- Working as a full stack engineer, designing Fund and Investor Accounting solutions in Hedge Fund Structure Graphs.
- Member of the team to onboard J.P.Morgan onto the platform.

Universität Paderborn, Paderborn, Germany — Jan 2016-Jun 2016
Studentische Hilfskraft(Student Research Assistant) at Analytic Information Systems and Business Intelligence Lab (AIS-BI)
- Bachelor's Thesis: "Compressed Knowledge transfer via Factorization Models in Recommender Systems"
- Face recognition in videos: built a web application on top of Microsoft's Project Oxford.

Citigroup, Pune, India
Software Engineering Intern — May 2015-Jul 2015
- Trading Controls visualization application for Equities Team using MEAN stack and d3.

PUBLICATION

"Inclusion of Semantic and Time-Variant Information Using Matrix Factorization Approach for Implicit Rating of Last.Fm Dataset," in *Springer Berlin Heidelberg - Arabian Journal of Science and Engineering* May 2016.

ACADEMIC PROJECTS

Analysis of Time Aware and Semantic Feature Based Music Recommender System — Jul 2015 - Nov 2015
- Proposed a semantic-Joint Matrix Factorization approach to incorporate semantic(geographic) and time based information for items in addition to user's implicit feedback to enhance the accuracy of the model.

Information Extraction and Sentiment Analysis — Jul 2014 - Nov 2014
- Applied NLP and graph propagation algorithms to predict and rate five most popular features of any item using Amazon user reviews. Implemented a Naïve Bayes spam filter to eliminate suspicious reviews thus refining the results.

Faculty Feedback Portal — Jan 2013 - Apr 2013
- Developed an institute wide web based application where students could anonymously give feedback about faculty, replacing the existing offline activity. Graphically summarized the feedback for the faculty to view.

OWN PROJECTS

RL agents on OpenAI Gym (Ongoing) — Aug 2017 - Present
- Applying Reinforcement Learning methods like Policy Gradient and Q-Learning with Neural Networks to learn Open Gym environments like Cartpole, MountainCar and Pong.

Time Series Forecasting — Jun 2017 - Jul 2017
- Used LSTM on Google's stock prices of 5 years to learn from multiple variables and then predict the stock price given the data of last 20 days.

Learning the writing style — Apr 2017 - May 2017
- Implemented a character level RNN model from scratch which learns writing style from my Bachelor's Thesis.

Android Application for Effervescence 2014 — May 2014 - Aug 2014
- Lead a team to design and develop the first ever *Android Application* for our annual festival Effervescence.

ACHIEVEMENTS & EXTRA-CURRICULAR

- Stood in the top 0.2% in the All India Engineering Entrance Examination 2012.
- Worked as the Events Head of the annual cultural cum technical festival *Effervescence* 2014.
- Represented the college band as a drummer in various events.