

# Dhruv Kumar

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EDUCATION	<b>Indian Institute of Information Technology Allahabad</b> , U.P., India B. Tech.(Hons) in Information Technology	Jul 2012- Jun 2016 GPA: 8.68 / 10.00 (9.07 - Last 2 years)
SKILLS	<b>Relevant Coursework</b> - Information Retrieval, Artificial Intelligence, Natural Language Processing, Cognitive Process Modelling, Optimization Techniques, Data Mining, Probability & Statistics, Mathematics(I, II, III). <b>Languages</b> - C, C++, Python, Java, Javascript, HTML, PHP and SQL. <b>Libraries</b> - Tensorflow, Keras, Gym, Scikit-Learn, NLTK, Pandas, matplotlib, OpenCV and d3.js <b>Frameworks</b> - AngularJS, Node.js, MongoDB, Flask, Spring, MyBatis and Struts	
EXPERIENCE	<b>Arcesium(DE Shaw Group)</b> , Hyderabad, India Software Engineer <ul style="list-style-type: none"><li>Worked as a full stack engineer, designing Fund and Investor Accounting solutions for Hedge Funds.</li><li>Member of the team to onboard J.P.Morgan onto the platform.</li></ul> <b>Universität Paderborn</b> , Paderborn, Germany Studentische Hilfskraft(Student RA) at Analytic Information Systems and Business Intelligence Lab (AIS-BI) <ul style="list-style-type: none"><li>Bachelor's Thesis: "Compressed Knowledge transfer via Factorization Models in Recommender Systems". Developed an algorithm to incorporate metadata in Factorization Machines, thus improving their accuracy.</li><li>Face recognition in videos: built a web application on top of Microsoft's Project Oxford.</li></ul> <b>Citigroup</b> , Pune, India Software Engineering Intern <ul style="list-style-type: none"><li>Trading Controls application for Equities Team using MEAN stack and d3. Was given a full-time offer.</li></ul>	Jul 2016-May 2018  Jan 2016-Jun 2016  May 2015-Jul 2015
PUBLICATION	"Inclusion of Semantic and Time-Variant Information Using Matrix Factorization Approach for Implicit Rating of Last.Fm Dataset," in <i>Springer Berlin Heidelberg - Arabian Journal of Science and Engineering</i> May 2016.	
ACADEMIC PROJECTS	<b>Analysis of Time Aware and Semantic Feature Based Music Recommender System</b> <ul style="list-style-type: none"><li>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.</li></ul> <b>Information Extraction and Sentiment Analysis</b> <ul style="list-style-type: none"><li>Applied NLP and graph propagation algorithms to predict and rate five most popular features of any item using Amazon user reviews which were filtered through a Naïve Bayes spam filter.</li></ul> <b>Faculty Feedback Portal</b> <ul style="list-style-type: none"><li>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.</li></ul>	Jul 2015 - Nov 2015 Jul 2014 - Nov 2014 Jan 2013 - Apr 2013
PERSONAL PROJECTS	<b>RL agents on OpenAI Gym</b> <ul style="list-style-type: none"><li>Applied Reinforcement Learning methods like Policy Gradient and Q-Learning with Neural Networks to learn Open Gym environments like Cartpole, MountainCar and Pong.</li></ul> <b>Time Series Forecasting</b> <ul style="list-style-type: none"><li>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.</li></ul> <b>Learning the writing style</b> <ul style="list-style-type: none"><li>Implemented a character level RNN model from scratch which learns writing style from my Bachelor's Thesis.</li></ul> <b>Android Application for Effervescence 2014</b> <ul style="list-style-type: none"><li>Lead a team to design and develop the first ever <i>Android Application</i> for our annual festival Effervescence.</li></ul>	Aug 2017 - Dec 2017 Jun 2017 - Jul 2017 Apr 2017 - May 2017 May 2014 - Aug 2014
ACHIEVEMENTS & EXTRA-CURRICULAR	<ul style="list-style-type: none"><li>Stood in the top 0.2% in the All India Engineering Entrance Examination 2012.</li><li>Worked as the Events Head of the annual cultural cum technical festival <i>Effervescence</i> 2014.</li><li>Represented the college band as a drummer in various events.</li></ul>	