

# Abhishek Niranjan

<http://abhishek-niranjan.github.io>

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## EDUCATION

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- **Indian Institute of Technology(IIT)** Kharagpur, India  
*Bachelor + Master of Technology in Computer Science; GPA: 7.98/10.0* July 2013 – July 2018
- **Kendriya Vidyalaya** Jodhpur, India  
*AISSCE (Grade XII); Percentage: 93.6%* Apr 2011 – Mar 2012

## EXPERIENCE

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- **Samsung Research Institute** Bangalore, India  
*Senior Software Engineer* Jun 2018 - Present
  - **Voice Intelligence:** Bixby is a voice assistant indigenous to Samsung smart devices. As a part of *Automated Speech Recognition(ASR)* team, I built a variant of *Transformer*, attention-based, architecture to achieve state-of-the-art results in *Grapheme2Phoneme* problem.
- **Amplus Solar** Gurgaon, India  
*Data Science Intern* May 2017 - July 2017
  - **Soiling Rate:** Photovoltaic plants experience soiling phenomena which results in decrement of power generation. Developed an algorithm to compute the soiling rate from limited data to devise a *cost-optimized* cleaning schedule of solar plants.
  - **Power-Generation Forecasts:** Engineered a forecasting module to predict hourly active power generation by a PV plant using *gradient boosted trees*. achieving a correlation of 0.97; Augmented the feature set by utilizing OpenWeatherMap API.
  - **Power-BI Reports:** Automated the generation of daily visualization reports of Solar Plants portfolio in *Power BI* by connecting MySQL server hosted on AWS EC2 instance. Built a GUI application using *PyQt4* to facilitate the data downloading from multiple dashboards.
- **Bidgely Technologies** Bangalore, India  
*Data Science Intern* May 2016 - July 2016
  - **Vacation Detection:** Bidgely's energy disaggregation technology helps consumers and utilities to adopt eco and pocket friendly consumption. Devised a sliding window algorithm to predict the vacation instances of the residents in *MATLAB* with *precision >95%* and *recall >70%*, which got incorporated into production
  - **Refrigeration Consumption:** Worked on the energy disaggregation module to compute refrigerator consumption from low resolution energy data, which was pushed to disaggregation pipeline.
- **Outsy Inc.** Mumbai, India  
*Application Developer Intern* May 2015 - July 2015
  - **Information Retrieval:** Outsy is a lifestyle and event recommendations android application. Extracted artists' names from 15,000 Facebook textual posts using *Stanford POSTagger* after NLTK assisted pre-processing; Generated artists' profile database using *Wikipedia API*, *Youtube API*, and *SoundCloud API*.

## PUBLICATIONS

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- **Drift in Online Social Media:** *IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), 2018*
- **Citation Sentence Reuse Behavior of Scientists: A Case Study on Massive Bibliographic Text Dataset of Computer Science:** *Proceedings of the 17th ACM/IEEE Joint Conference on Digital Libraries (JCDL), 2017*

## PROJECTS

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- **Scientific Document Clustering Based on Key-phrases:** Focused on studying how the popularity of different tasks and techniques related to NLP Research emerges/varies with time as a part of Master's Thesis.
- **Sign Language Translation:** Translation of American sign language gestures to text using flex sensing gloves.
- **Data Extractor from 2D Plots:** A graph extractor that detects plots in any PDF and digitizes the graphs.
- **Optimal Bidding:** Cost optimization algorithm employing solar power prediction to manage a gated community's electricity requirements.

## SKILLS

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- **Languages:** Python, C++, SQL, Javascript
- **Frameworks & Libraries:** TensorFlow, PyTorch, Scikit-learn
- **Softwares & Tools:** MATLAB, Tableau, Power-BI, Git
- **Documentation:** L<sup>A</sup>T<sub>E</sub>X