

Daivik Nema

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EDUCATION

- **Birla Institute of Technology and Science, Pilani** Pilani, Rajasthan
Bachelor of Engineering in Computer Science; GPA: 7.42/10.0 Aug. 2014 – Present
- **Gaurav High School and Jr. College** Navi Mumbai, Maharashtra
Maharashtra State Board of Secondary and Higher Secondary Education; Percentage: 86.46 Jul. 2012 – Jul. 2014
- **Delhi Public School** Navi Mumbai, Maharashtra
Central Board of Secondary Education; Percentage: 92 Jul. 2010 – Jul. 2012

INTERNSHIPS/WORK EXPERIENCE

- **IBM India Software Labs** Bangalore, India
Intern Jan 2018 - Present
 - **Watson IoT Team:** I'm currently working on an IoT enabled Smart Buildings solution that will monitor energy consumption in large commercial real estates such as retail stores and offices. It will run analytics on the energy meter data and help companies to save on their energy bills. I've been responsible for various tasks related to hardening the research prototype to a marketable product: writing middleware components that help to integrate the UI, analytics and data stores; writing installation scripts to set up the end-to-end system. I've also been responsible for knowledge transfer and upskilling of the marketing and sales team.
- **Samsung Research Institute** New Delhi, India
Summer Intern May 2017 - Jul 2017
 - **Network Intelligence Team:** Learning patterns in cell-phone users' network activity and suggesting time slots for installing software updates. Project work involved learning about the use of Recurrent Neural Networks for analysis of time-series data. I wrote code in C++ using Eigen library to implement a small RNN model, and cross compiled it to run on an ARM architecture (Odroid board). This was done as a proof of concept to check the viability of training the RNN on-device as opposed to training it on remote servers.
- **Central Electronics Engineering Research Institute (CEERI)** Pilani, India
Summer Intern May 2016 - Jul 2016
 - **Digital Systems Group:** Feature Extraction and Classification of EEG Signals. Part of a larger research effort on Brain Computer Interface (BCI) at Digital Systems Group, CEERI Pilani. Project work involved learning about the major steps in a BCI system, principal components analysis for feature extraction and classification using convolutional neural networks.

PROJECTS

- **Biogeography Based Optimization for Global Routing in VLSI design:** Semester project under the guidance of Dr. Lavika Goel at CSIS department, BITS Pilani.
- **Named Entity Recognition using Hidden Markov Models:** Project work carried out at Web Intelligence and Social Computing (WISoC) Lab, BITS Pilani.

AWARDS AND ACHIEVEMENTS

- **Teaching Assistant, Data Structures and Algorithms course:** Co-supervised two lab sections and contributed to design of lab assignments. DSA is a compulsory course for all Computer Science sophomores at BITS, Pilani.
- **ACM-ICPC 2015, ranked 85th out of over 1000 participating teams:** Qualified for Chennai on-site regional round
- **Final Shortlist for Aditya Birla Scholarship:** awarded only to students with top scores in various engineering entrance examinations in India
- **JEE Advanced 2014, All India Rank 2605:** Approximately 1,300,000 students appeared for JEE in 2014
- **BITSAT 2014, Scored 416 out of a maximum possible 450:** Out of approximately 150,000 students that attempt the exam every year, only 256 scored higher than 400 in 2014

- **Regional Mathematics Olympiad 2012, Greater Mumbai Division:** Qualified for Indian National Mathematics Olympiad. Attended INMO Training Camp at Homi Bhabha Center for Science Education, Mumbai
- **Selected for Kishore Vaigyanik Protsahan Yojana (KVPY) Mentorship Scheme, 2012:** All India Rank: 366. Invited to National Science Camp at IISc Bangalore.
- **Qualified National Standard Examination in Junior Science (NSEJS), 2012:** Selected to appear for Indian National Junior Science Olympiad (INJSO). Only 300 students all across India are selected.

PROGRAMMING SKILLS

- **Languages:** Python, C++, BASH, Java
- **Libraries:** Tensorflow, Keras, Theano, Scikit-Learn, Numpy, Pandas, Matplotlib, mlpack
- **Tools:** Git, Docker, Linux command line tools, L^AT_EX
- Familiar with basic web development using Django. Experience in building static websites using Jekyll. Worked with Joomla CMS.