Rahul Duggal

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EDUCATION

Georgia Institute of Technology, College of Computing **2018 – Present**
- **Ph.D. in Computer Science (Advised by Prof. Jimeng Sun)**

University of Delhi, Netaji Subhas Institute of Technology, India **2011 – 2015**
- Bachelor of Engineering (B.E.) in Computer Engineering

PROFESSIONAL EXPERIENCE

Graduate Research Assistant, Sunlab at Georgia Tech [Lab Page] **Aug 2018 – Present**
- Working on tensor factorization based **compression** and **speedup** techniques for **Deep Learning models**.
- Eventual goal is to compress a sleep staging CNN such that it fits on an embedded device.

Software Developer, Epic Systems Corp, Madison, WI, USA **Oct 2017 – Jun 2018**
- Worked with the OpTime team. Developed **software** for scheduling and **documenting surgery time procedures**.

Research Assistant, SBILab at IIIT-Delhi, India [Lab Page] **Jan 2016 – Sep 2017**
- Developed a **soaftware tool** to **diagnose Leukemia** (a type of bone cancer) from medical images.
- Successfully leveraged **Deep Learning** based tools leading to **publications at top conferences.**

Full Stack Developer, OnlineMocks, New Delhi, India [Demo] **Jun 2015 – Dec 2015**
- Member of the **founding team**, that built the web based learning platform from scratch.
- The website **got funded** by Alchemist India, and is being used by over 1k+ students.

Software Development Intern, Samsung Research, Bangalore, India **Jun 2014 – Jul 2014**
- Developed a prototype power saving application for Samsung's new flagship OS - Tizen.

PUBLICATIONS

[W1] R Duggal, A Gupta, **"P-TELU: Parametric Tan Hyperbolic Linear Unit Activation for Deep Neural Networks"**, International Conference on Computer Vision (**ICCV**) : Workshop on Compact and Efficient Feature Representation and Learning, Italy, Oct 2017. [Paper]

[C2] R Duggal, Anubha Gupta, et al, **"SD-Layer: Stain Deconvolutional layer for CNNs in Medical Microscopic Imaging"**, 20^{th} International Conference on Medical Image Computing and Computer Assisted Intervention (**MICCAI**), Canada, Sep 2017. [Paper][Code]

[C1] R Duggal, A Gupta, et al, **"Overlapping Cell Nuclei Segmentation in Microscopic Images Using Deep Belief Networks"**, 10^{th} Indian Conference on Computer Vision, Graphics and Image Processing (**ICVGIP**), India Dec 2016. [Paper][Code]

AWARDS

- Selected to attend the **Summer School on Deep Learning** at IIIT Hyderabad. **Secured 1st position (overall)** among 150 attendees wherein all participants were ranked in 5 daily challenges. Reward entails a potential travel grant to CVPR 2018 apart from a cash prize. **2017**
- Awarded the **Indian Association for Research in Computer Science** (ACM-IARCS) travel award to present my paper at MICCAI 2017, Quebec City, Canada. **Jun 2017**
- Top 0.2 percentile out of 1.2 million candidates in the **All India Engineering Entrance Exam**.
- Top 0.9 percentile out of 0.5 million candidates in the **IIT Joint Entrance Exam**.
- Won a team Gold and an individual Bronze medal at the 4th International Young Mathematician's Convention which saw participation of 77 teams from 11 countries. **2008**

SKILLS

Platforms & Libraries : Node, MATLAB, CUDA (basic), Caffe (basic), Theano, Keras, Pytorch

Competitive Programming
- Codeforces : Peak Rating 1682, **title - Expert**.
- Codechef : 131 problems solved, **peak global rank 307**.
- Ranked 186 and 168 worldwide, in google APAC rounds A and B. Invited to interview onsite at Google. **2014**