

# Abishek Prasanna

10, Birchwood Aptmts, 272 Hamilton St, New Brunswick, NJ – 08901

☎ +1 (848) 234 6960 • ✉ abishek.prasanna@rutgers.edu • 🐦 AbishekPrasann2  
🌐 Abishekpras • 🌐 in abishek-prasanna  
🌐 Personal Website: abishekpras.github.io

Master's student in Computer Science dept., Rutgers University, New Jersey. Research interests: Representation Learning, Bayesian Neural Nets, Neural Information Retrieval, Text and Web-mining, Unsupervised Generative models and Meta Learning.

## Education

- **Rutgers University** **New Jersey, USA**  
*Master of Science in Computer Science, Machine Learning track, GPA : 3.86/4.00, 21/30 credits* Aug '17–May '19
- **National Institute of Technology Trichy** **Trichy, India**  
*Bachelor of Technology in Computer Science and Engineering, CGPA : 7.90/10.00* Jul '11–Aug '15

## Research Experience

- **Summer Research Assistant, Rutgers University** **May '18–Aug '18**  
*Cancelable Biometrics: Learning repeatable non-invertible representations for biometrics privacy*
- **Undergraduate Research Assistant, B.Tech Thesis** **Jan '15–May '15**  
*Community membership identification using seed set expansion with an adaptive PageRank algorithm*

## Professional Experience

- **Samsung Research Institute Bangalore (w./ Samsung SmartThings, USA)** **Bangalore, India**  
*Intelligence & IOT Division, Senior Software Engineer* Aug '15–Aug '17
  - \* Developed embedded driver application for Smart Home Hub enabling mobile surveillance through clips and live stream.
  - \* Decentralized video-processing & security services to reduce latency in live-stream routing from cameras to mobiles.
  - \* Data preparation and modeling Deep Neural nets for NLU in Samsung Bixby Voice interface.
  - \* Analysis and security monitoring of Zigbee traffic during device rejoin with hub.
- **Samsung Research Institute Bangalore** **Bangalore, India**  
*Wireless Networks Division, Student Intern* May '14–Jul '14
  - \* Surveyed energy consumption in Bluetooth, Bluetooth Smart, and Zigbee on a point-to-point network

## Projects

- **Attend, Infer, Repeat : Fast Scene Understanding, SM Eslami** **Aug '18–Jan '19**  
*Paper Impln - Deep Generative model applied to scene understanding on Multi-MNIST dataset*
- **One-Shot summarization with Attention based Seq2Seq encoder-decoder network** **Mar '18–May '18**  
*French summarization by learning shared representation on Engl. summarization & French translation*
- **Product Recommender system for efficient similarity join with Map-Reduce model.** **Jan '18–Apr '18**  
*DIMSUM algorithm on Amazon Products data for fast recommendation based on all-pairs similarity*
- **Metric Learning for Face Recognition with Triplet Loss training, Eigenfaces, Fischerfaces** **Jan '18–Apr '18**  
*Pre-trained VGG-19 model fine-tuned for face recognition on LFW & Ext. Yale Dataset*
- **Reinforcement learning arm movements for target reaching tasks with Spiking Neural Nets** **Nov '17–Dec '17**  
*STDP learning applied to Computational Neuroscience inspired sensorimotor model*
- **Biological Neuron Spike Sorting and Clustering Analysis (Cocktail party problem)** **Oct '17–Dec '17**  
*Comparison of manifold learning & traditional clustering approaches in distinguishing neuron spikes*
- **Large Scale Spectral Clustering with Landmarks, X Chen** **Oct '17–Dec '17**  
*Paper Impln. - Family of Spectral Clustering algos & NMF applied to Image Segmentation*

## Skills

---

- **Programming Languages:** Proficient in: Python, C, C++
- **Libraries & Toolkits:** PyTorch, Keras, TensorFlow, Numpy, Hadoop, NLTK
- **Languages:** English, Tamil, Malayalam, Hindi

## Awards and Honors

---

- **Student Travel Grant, First Nepal Winter School in AI 2018**  
*Served as TA and Lab instructor in the 10-day **Nepal Winter School in AI** introducing students to AI research.*
- **Best Hack for Good, iCIMS Halloween Hackathon 2018**  
*Built **Inclusive.ai**, a Messenger Chatbot with third party APIs to spread awareness on inclusion in AI research*
- **All India Engineering Entrance Exam 2011**  
*Secured All India Rank **6100** among 110,000 students*
- **Special Merit List, All India Senior Secondary Exams 2009**  
*Placed in the top **0.1%** among all Indian students.*

## Extra-curriculars

---

- **Professionally trained Carnatic/Indian classical singer**  
*Performed on TV, Radio, 30+ programs, competitions etc*
- **Member of RU Cog Sci Club, Rutgers University**  
*Conduct weekly forums to discuss, learn and share ideas in Cognitive Science, Philosophy and Psychology.*
- **Co-ordinator of Campus Placement Committee, NIT Trichy**  
*Taught algorithms and competitive coding techniques as a personal mentor for a batch of juniors.*
- **Secretary of Office of Alumni Relations, NIT Trichy**  
*Improved Alumni engagement and organized Bangalore chapter.*