

# Advait Koparkar

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**Objective:** Seeking an internship for Summer 2019 in the fields of Signal Processing and Machine Learning

## Education

**Georgia Institute of Technology**, Atlanta, GA  
*MS Electrical and Computer Engineering*

*Aug 2018 – Dec 2019 (Expected)*

**Birla Institute of Technology and Science (BITS)**, Pilani, India  
*BE (Hons.) Electrical and Electronics Engineering*

*Aug 2014 – May 2018*  
Cumulative GPA: **9.73/10** (4.00/4.00)

## Technical Skills

- *Programming Languages:* C, C++, Python, MATLAB, Shell Scripting
- *Software/API:* OpenCV, TensorFlow, PSPICE, MultiSim, Cadence, Proteus, STL, Minitab

## Internships and Experience

- **Indian Institute of Science (IISc), Bangalore** *Aug – Dec 2017*
  - Developed a **Supervised Learning** algorithm for automatic segmentation of speech articulators from rtMRI videos
  - Obtained **higher accuracy** than existing methods (8.99% more accurate)
  - Paper accepted and presented at **IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)** 2018, Calgary, Canada ([ICASSP Presentation](#)) ([Git](#)) (Tools: Python, MATLAB, Shell)
- **Nanyang Technological University (NTU), Singapore** *May – July 2017*
  - Developed a low-cost video surveillance system based on **Compressed Sensing and reconstruction of images**
  - **Reduced data costs and accomplished real-time performance** ([Git](#)) (Tools: Python, Raspberry Pi)
- **Tata Consultancy Services Ltd. (TCS), Mumbai** *May – July 2016*
  - Worked as part of the software development team of TCS for its client **Tata Capital Ltd.**
  - **Streamlined the existing framework** to calculate the score for sanctioning loans for the client
- **Teaching Assistantship:** Computer Programming - Designed and conducted weekly lab sessions

## Relevant Projects

- **Localization of Autonomous Underwater Vehicle (AUV)** *Jan – May 2017*
  - Implemented **fine localization** of AUV using on-board camera images
  - Used **SURF and SIFT transforms** to estimate orientation of the camera (Tools: OpenCV, C++)
- **Dual-Tone Multi-Frequency (DTMF) Demodulator** *Aug – Dec 2016*
  - Designed IIR filter-bank using Goertzel Algorithm for **real-time touch-tone keypad recognition**
  - **Achieved accurate results** by implementing the algorithm on **TI DSK6713 DSP** (Tools: CC Studio, C)

## Relevant Coursework

**Graduate (Ongoing):** Adv. Digital Signal Processing, Digital Image Processing, Adv. Programming Techniques

**Undergraduate:** Digital Signal Processing, Computer Programming, Statistical Inference, Optimization

**Online Courses:** Neural Networks and Deep Learning, Structuring Machine Learning Projects, Improving Deep Neural Networks

## Academic Achievements

- **Rank 1** in the Department of Electrical and Electronics Engineering in graduating class of 2018
- Received **IEEE Signal Processing Society Travel Grant** for presenting paper at **ICASSP 2018**, Canada