# Shreenivas Bharadwaj

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## EDUCATION

**NATIONAL INSTITUTE OF TECHNOLOGY TRICHY**
B.Tech. in Computer Science
Expected June 2018 | Tamilnadu, India

## LINKS

Github: **shreenibhar**
Gmail: **vshreenivasbharadwaj**

## COURSEWORK

**UNDERGRADUATE**
Artificial Intelligence
Machine Learning
Data Warehouse and Data Mining
Design and Analysis of Parallel algorithms
Data Structures and Algorithms
Database Management Systems
Operating Systems
Computer Networks

## SKILLS

**PROGRAMMING**
Frequent usage:
• C/C++ • Python • Android-Java • Cuda
• Matlab • LaTeX • Tensorflow • Pytorch
Occasional usage:
• HTML • CSS • Javascript • Jquery
• MySQL • Bash
Familiar usage:
• Django

## SOCIETIES

2015-18    **Delta** Web-ops team, NITT

## AWARDS

• All India Senior Secondary Examination, 2014, Total: 482/500, Top 1 %
• Best Student Paper Award, Vortex, NIT Trichy
• AISSE School 1st in Physics and CS, 2nd in Math

## EXPERIENCE

**AMAZON**
Summer Internship (May'17 – July'17)
- Created a utility service in Kindle Digital Commerce Platform using Java, Coral framework and Spring.
- Handled tickets related to the service.

## RESEARCH

**HIGH PERFORMANCE COMPUTING WITH GPUS, IIT DELHI**
Acceleration of Vector Auto Regression (July'17 - Dec'17)
- Achieved 650x speedup over the regular CPU code performance in granger analysis of fMRI data.
- Implemented in Nvidia CUDA platform.

**NETWORKING OPTIMIZATION, NIT TRICHY**
MAC layer optimization, Network Lab (July'16 – Dec'16)
- Optimized the MAC 802.11 wireless network Contention Window mechanism.
- Implemented in NS2 simulator. Paper was published in Vol.7 No.2 IJDIWC(SDIWC) journal. Links: **Journal Paper**

**NAMED ENTITY RECOGNITION, IIIT HYDERABAD**
LTRC Lab (May'16 – July'16)
- Improved the accuracy of Named Entity Recognition task for Hindi by 15%.
- Achieved accuracy in English task reached 90%.
- Implemented in Python Tensorflow framework. Paper was published in the proceedings of ICON-2016 conference. Links: **Conference, Paper, Github**

## PROJECTS

**AI BOT FOR GIPF GAME, NIT TRICHY**
Final year thesis (Jan'18 - April'18)
- Defeated the current champion bot in GIPF.
- Analyzed various strategies (Monte Carlo Tree Search, Negascout).

**MUSIC RECOGNITION AND GENERATION**
Recognizing instruments in Polyphonic Audio Samples (Jan'18 - Feb'18)
- Improved accuracy by 10% in the IRMAS dataset.
- Used LSTM neural networks with Mel Cepstral features.
- Implemented with python Pytorch framework.
- Music created by generating Spectrograms using DC-GAN.

**DELTA CLUB PROJECTS**
2015-18
- Developed inventory management site with DJANGO and MySQL database.
- Developed a campus communication application in android.
- Developed Tic-Tac-Toe, Chess games with AI in android.