Shreenivas Bharadwaj

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EDUCATION

NIT TRICHY
B.Tech. in Computer Science
Expected June 2018 | TamilNadu, India
University domain

VIDYA MANDIR MYLAPORE
Grad. May 2014| TamilNadu, India
Aggr. Marks: 482/500 (AISSCE)

LINKS

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

COURSEWORK

UNDERGRADUATE
Data Structures and Algorithms
Design and Analysis of Parallel algorithms
Data Warehouse and Data Mining
Machine Learning
Artificial Intelligence
Operating Systems

SKILLS

PROGRAMMING
Frequent usage:
•C/C++ •Python •Android •Cuda
•Matlab •LaTeX •Tensorflow •Java
Occasional usage:
•HTML •CSS •Javascript •Jquery
•OpenCV •MySQL •Bash •Scikit-learn
•Scikit •Numpy
Familiar usage:
•PHP •NodeJS •Flask •Assembly •NS2 simulator

SOCIETIES

2015-18 **Pragyan Web-ops team** .
2015-18 **Festember Web-ops team** .
2015-18 **Delta** Web team of NIT Trichy.

EXPERIENCE AND PROJECTS

INSTRUMENT RECOGNITION
Recognizing instruments in Polyphonic Audio Samples (Jan'18 - Feb'18)
- Improved accuracy by 10% in the IRMAS dataset.
- Used LSTM neural networks with mel cepstrum features.
- Implemented with python Tensorflow framework.

HIGH PERFORMANCE COMPUTING WITH GPUS
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.

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

CODE CHARACTER (AI CODE BATTLING)
Organizer of Code Character, Pragyan (Dec'16 – Feb'17)
- Developed the server driver code (C/C++, cmake) to run AI battle simulations in parallel.
- Developed the default AI logic for participants to compete with.

STUDENT SCHOLARSHIP SITE
Semester Project (Sept'16 – Dec'16)
- Developed UI with bootstrap framework.
- Developed back-end with DJANGO and MySQL database.

NETWORKING OPTIMIZATION
MAC layer optimization, NIT Trichy Network Labs (July'16 – Dec'16)
- Optimized the MAC 802.11 wireless network Contention Window mechanism.
- A dynamic regressive learning algorithm based on Markov models was used.
- Implemented in NS2 simulator. Paper was published in Vol.7 No.2 IJDIWC(SDIWC) journal. Links: **Journal Paper**

NAMED ENTITY RECOGNITION
Intern in IIIT Hyderabad LTRC Labs (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**

2 PLAYER GAMES WITH ANDROID
Personal obsession with AI (Jan'16 - April'16)
- Implemented Chess, Tic-Tac-Toe and Ultimate Tic-Tac-Toe in Android.
- Implemented Socket communications to play from mobile to mobile.
- Developed the AI with minimax and alpha-beta pruning algorithms with Zobrist hashing and Transposition tables.