Shreenivas Bharadwaj **Venkataramanan**

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Education

University of California, San Diego _La Jolla, CA_
M.S. IN COMPUTER SCIENCE _Sept 2018 - June 2020 (Expected)_

National Institute of Technology, Trichy _Tiruchirappalli, India_
B.TECH. IN COMPUTER SCIENCE AND ENGINEERING | CUM. GPA: 8.31/10 _July 2014 - May 2018_

Skills

Programming	C/C++, Python, Java, Matlab, HTML, CSS, Java Script, Bash, SQL, Git, LaTeX
Frameworks	Android Studio, Tensorflow, Pytorch, Jquery, Flask, CUDA/cuBLAS/Thrust

Software Development Experience

Amazon _Chennai, India_
SOFTWARE DEVELOPMENT INTERN | (JAVA, HTML, CSS, JAVA SCRIPT/JQUERY, SQL, BASH, CORAL FRAMEWORK) _May 2017 - July 2017_
- Designed an internal tool page service in the Kindle Digital Commerce Platform to expose the API safely to other teams.
- Reduced the overhead in querying time for listing book loans by 90% by exposing the batch APIs. Implemented LDAP orchestrator for authentication. Implemented statistical tree summaries to save time in investigation. Developed backend using the Coral framework.
- Code reviewed, wrote high coverage unit tests, used Amazon's build/test/deployment tools.and successfully deployed the project.

Delta _Trichy, India_
UNIVERSITY DEVELOPMENT CLUB MEMBER | (FLASK, SQL, ANDROID STUDIO) _2015 - 2018_
- Developed inventory management site with Flask and MySQL database.
- Collaborated and created a campus communication application in android.

Research Experience

Acceleration of Vector Auto Regression with GPUs _Indian Institute of Technology, Delhi_
RESEARCH INTERN | (CUDA/CUBLAS/THRUST, MATLAB) _July 2017 - Dec 2017_
- Accelerated Vector Auto Regression models using GPUs and computed tight bound solutions for Lasso regression models.
- Achieved 650x speedup over the regular CPU code.

MAC layer optimization, Dynamic Learning _National Institute of Technology, Trichy_
COURSE RESEARCH | (C, C++, NS2) _July 2016 - Dec 2016_
- Optimized the MAC 802.11 Contention Window mechanism. Used Newton's regression to solve complex equations.
- Increased throughput by 3% (10 Kbps). Published in IJDIWC journal.

Named Entity Recognition _International Institute of Information Technology, Hyderabad_
RESEARCH INTERN | (PYTHON, TENSORFLOW) _May 2016 - July 2016_
- Performed NER task using LSTM networks and Word Embeddings.
- Improved accuracy by 15% for Hindi. Achieved 90% accuracy in English. Published in ICON-2016 conference indexed in ACL.

Projects

Game strategies for the GIPF game _National Institute of Technology, Trichy_
B.TECH. THESIS | (C, C++, PYTHON) _Jan 2018 - April 2018_
- Analyzed and Implemented various strategies (Monte Carlo Tree Search, Minimax).
- Defeated the current champion bot in GIPF.

Music Recognition and Generation
PERSONAL PROJECT | (PYTHON, PYTORCH) _Jan 2017 - May 2017_
- Used LSTM neural networks with Mel Cepstral features. Music created by generating Spectrograms using Deep Convolutional GANs.
- Improved accuracy by 10% in the IRMAS dataset.

Publications

Dynamic Optimization of IEEE 802.11 DCF based on Active Stations and Collision Prob.
INTERNATIONAL JOURNAL OF DIGITAL INFORMATION AND WIRELESS COMMUNICATIONS _2017_
Balasubramanian, N., **Venkataramanan, S.B.** and Aathma, A.

Towards deep learning in Hindi NER: An approach to tackle the labelled data scarcity
ICON, ACL INDEXED _2016_
Athavale, V., **Bharadwaj, S.**, Pamecha, M., Prabhu, A. and Shrivastava, M.