

Shreenivas Bharadwaj Venkataramanan

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Education

University of California, San Diego

M.S. IN COMPUTER SCIENCE

La Jolla, CA

Sept 2018 - June 2020 (Expected)

National Institute of Technology, Trichy

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING | CUM. GPA: 8.31/10

Tiruchirappalli, India

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)

May 2017 - July 2017

- Designed and deployed an internal tool page service in the Kindle Digital Commerce Platform using Coral framework.
- Executed Amazon's development process, code reviews, wrote high coverage unit tests, used Amazon's build/test/deployment tools.

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 (PHP backend).
- Devised AI for Tic-Tac-Toe, Chess and built game in android for hackathons.

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

Natl. 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

IIIT, Hyderabad

RESEARCH INTERN | (PYTHON, TENSORFLOW)

May 2016 - July 2016

- Performed NER task using LSTM networks and Word Embeddings.
- Improved accuracy by 15% in the Named Entity Recognition task for Hindi. Achieved 90% accuracy in the English task. Published in the proceedings of ICON-2016 conference indexed in ACL.

Projects

Game strategies for the GIPF game

Natl. Institute of Technology, Trichy

B.TECH. THESIS | (C, C++, PYTHON)

Jan 2018 - April 2018

- Analyzed 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.