

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

Python, C/C++, 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 an internal tool in the Kindle Digital Commerce Platform to expose the API safely to other teams.
- Reduced the overhead of querying time for listing book loans by 90% using batch APIs. Used 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, Coding club

Trichy, India

UNIVERSITY DEVELOPMENT CLUB MEMBER | (PYTHON, FLASK, SQL, ANDROID STUDIO)

2015 - 2018

- Developed a demo course management site with Flask and MySQL database to select and manage student courses.
- Collaborated and created a campus communication application in Android to notify campus events to around 1000 students.

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.