Shreenivas Bharadwaj **Venkataramanan**

☐ (+1) 858-366-2933 | ✉ vshreenivasbharadwaj@gmail.com | 🏠 shreenibhar.github.io | 🐙 shreenibhar | 💼 shreenibhar | 🎓 gscholar

Education

University of California, San Diego
La Jolla, CA

M.S. IN COMPUTER SCIENCE | CGPA: 3.88/4
Expected Mar 2020

- **Courses**: Neural Networks, Natural language Processing, AI-Statistical Learning, Database Systems
- **Teaching Assistant**: Introduction to Python, Data Science in Practice

National Institute of Technology, Trichy
Tiruchirappalli, India

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING | CGPA: 8.31/10
Graduated May 2018

Skills

Programming Languages   Python, C/C++, Java, Matlab, HTML, CSS, Java Script, Bash, SQL
Frameworks and Tools   PyTorch, Tensorflow, CUDA/cuBLAS/Thrust, Flask, Jquery, Git, Android Studio

Software Development Experience

Google
Mountain View, California

SOFTWARE ENGINEERING INTERN | (C++)
Jun 2019 - Sep 2019

- Designed backfill system in Google Assistant micro services infrastructure to fill missing features in requests from any device.
- Enabled data push mechanism and integrated framework for experiments. Implemented diffing method to measure difference between two protocol buffers. Achieved 0% difference between backfill and ground truth for 100% of queries.
- Tested prototype and launched backfill with experiment controlled environment using Google's build/test/deployment tools.

Amazon
Chennai, India

SOFTWARE DEVELOPMENT INTERN | (JAVA, HTML, CSS, JAVASCRIPT/JQUERY, SQL, BASH)
May 2017 - Jul 2017

- Designed internal tool in Kindle Digital Commerce Platform to expose Kindle APIs safely to other teams.
- Reduced overhead of querying time for listing book loans by 50% using batch APIs. Used LDAP orchestrator for authentication.
- Implemented statistical tree summaries to save investigation time.
- Used Amazon's build/test/deployment tools and successfully deployed the project.

Research Experience

Acceleration of Vector Auto Regression with GPUs
IIT, Delhi

RESEARCH INTERN | (C++,CUDA/cuBLAS/THRUST, MATLAB)
Jul 2017 - Dec 2017

- Accelerated Vector Auto Regression models using GPUs and computed tight bound solutions for Lasso regression models.
- Achieved 650x speedup over regular CPU code. Published in HIPC-2019 conference (IEEE).

Named Entity Recognition
IIIT, Hyderabad

RESEARCH INTERN | (PYTHON, TENSORFLOW)
May 2016 - Jul 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

ChatterBot - A Text Classifier Bot
University of California, San Diego

COURSE PROJECT | (PYTHON, DIALOGFLOW, PYTORCH, FLASK)
Apr 2019 - Jun 2019

- Implemented a Dialogflow chat bot to classify text with Flask backend.
- Trained LSTM neural networks to classify text and deployed it in Flask. Designed a conversational flow for Chat Bot. Implemented delay response mechanism to handle latency for explanation queries. Optimized query latency using cached models.
- Achieved 99% accuracy for text classification tasks and maximum query latency of 5s.

Other Projects and Experiences

- *Text to Image using LSTM and GANs*: Created images corresponding to text descriptions given to the system.
- *Musical Instrument Recognition using PyTorch*: Identified musical instruments from given audio samples.
- *Game Strategies for GIPF game using Monte Carlo Tree Search*: Defeated the current champion in GIPF.

Publications

Acceleration of Sparse Vector Autoregressive Modeling using GPUs

HIGH PERFORMANCE COMPUTING, DATA, AND ANALYTICS, IEEE
2019

Dynamic Optimization of IEEE 802.11 DCF based on Active Stations and Collision Prob.

INTERNATIONAL JOURNAL OF DIGITAL INFORMATION AND WIRELESS COMMUNICATIONS
2017

Towards deep learning in Hindi NER: An approach to tackle the labelled data scarcity

INTERNATIONAL CONFERENCE ON NATURAL LANGUAGE PROCESSING, ACL
2016