Agrawal Amey

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EDUCATION

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI
2014–2018 | Pilani
B.E. (Hons.) in Computer Science
Cum. GPA: 7.74

LINKS

Github, Behance,
LinkedIn://agrawalamey

SKILLS

LANGUAGES
Python • JavaScript • C/C++ • Java • Matlab • Prolog • Scheme • Verilog • Assembly

DATABASES
MySQL/Oracle/SQLite • MongoDB • Redis

WEB
HTML • CSS/SCSS • JQuery • Angular • Express • Flask

DATA SCIENCE
• Tensorflow • TensorflowOnSpark • Scikit-learn • Keras • Pytorch • Pandas

MISC
Shell Scripting • Git • LaTeX • Markdown

DESIGN
CorelDraw • Photoshop • Illustrator

EXPERIENCE

QUBOLE INDIA | Software Engineering Intern
July 2017 – Present | Bangalore, KA.

- Conceptualizing and developing Qubole's inital offering for enterprise distributed deep learning platform.
- Won 'Spotlight' award for outstanding performance during month of September 2017.

ABSENTIA VIRTUAL REALITY PVT. LTD. | Research Intern
May 2017 – June 2017 | Bangalore, KA.

- Developed deep learning models for text to animation conversion using Keras.

BHARAT HEAVY ELECTRICAL LTD (BHEL) | Software Engineering Intern
May 2016 – July 2016 | Trichy, TN.

- Created a web-crawler and visualization tool in Node.js.
- Developed system log management tool using MongoDB and Python.
- Worked on a face recognition system based on Google's FaceNet.

PROJECTS

NEURAL TURING MACHINES WITH POINTER NETWORKS | March 2017 - April 2017

- Added pointer network like attention mechanism into a standard NTM architecture to solve combinatorial optimization problems.

POKEMON MMORPG | March 2017 - April 2017

- Designed and developed fully distributed multi-player online game entirely in C.
- Used Redis as message broker and MongoDB as database.

DEEP Q-LEARNING FOR AUTONOMOUS WAREHOUSE ROBOTS | January 2017 - April 2017

- Implemented a Deep Q-learning algorithm to make warehouse robots which can learn to navigate autonomously.
- Developed 2D simulations using pybox2D and 3D simulations using V-rep.
- Implemented the neural network using keras.

IMAGE CAPTIONING USING LSTM | October 2016

- Developed a deep learning model for generating short descriptions of images based using CNN and LSTM.
- Implemented LSTM in python using Numpy for CPU and Tensorflow for GPU implementation.

COURSEWORK

Object Oriented Programming
Database Systems
Data Structures and Algorithms
Design and Analysis of Algorithms
Operating Systems
Computer Networks
Compiler Construction
Advanced Calculas
Linear Algebra
Machine Learning
Information Retrieval
Neural Networks and Fuzzy Logic
Cognitive Computing

CNN VISUALIZATION TOOLKIT | April 2017

- Integrated a collection of popular CNN visualization techniques into a single framework which can take any Keras CNN model as input.

AUTOMATED NEWS-IN-SHORTS | November 2016

- Created an automatic trending news aggregator using natural language processing models and unsupervised machine learning techniques.
- Developed web clients and REST API using MongoDB and Node.js.
- Implemented processing algorithm using Numpy, NLTK, scikit-learn and gensim.

PREDICTING ELECTION RESULTS USING TWITTER | April 2015

- Modeled a deep learning algorithm to perform sentiment analysis on tweets to predict results of 2016 US presidential elections.
- Implemented convolutional neural network from the ground up in python.

REAL-TIME CLASSIFICATION OF NETWORK TRAFFIC | March 2017 - April 2017

- Developed random forest and Multilayer perceptron models to perform real-time classification of network traffic.
- Implemented models using Scikit-learn and Keras and captured live packets using pyshark.
- Handled large amount of network traffic data using mongoDB.

ARXIV-SANITY V2.0 | February 2017

- Revamped Andrej Karpathy's Arxiv-Sanity for improved functionality and a better UI.
- Built upon the existing flask web server and migrated database to mongodb for scalability.

LACUNA | February 2016

- Created an online treasure-hunt for technical festival of BITS Pilani, played by over 500 users in span of 24 Hrs.
- Developed game using vanilla Javascript.
- Designed vector and raster graphics for game in CorelDraw and Photoshop respectively.