

NAMAN BHALLA

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EDUCATION

BML Munjal University

- August 2016 - * (Expected May 2020)
- **B.Tech**, Computer Science and Engineering, **CGPA** 9.61 / 10
- **Relevant Coursework:** Introduction to Programming, Object Oriented Programming Skills, Data Structures, Design and Analysis of Algorithms, Computer Organization and Architecture, Discrete Mathematics, Operating Systems, Mobile Application Development, Database Systems
- **Clubs:** ACM, Robotics, Entrepreneurship

WORK EXPERIENCE

Data Science Intern – Shipy

(17 February 2018 - *)

- Working on solving complex problems in the field of logistics using Deep Learning.
- Implemented state of art Neural Networks for OCR and Language Segmentation.
- Gained experience using Google Vision and Natural Language APIs.
- Frameworks and Tools Used: Tensorflow, Keras, PyTorch, FastAI, Google Cloud Platform, requests.

Machine Learning Engineer Intern – Carabiner Technologies

(14 February 2018 – 4 May 2018)

- Bootstrapped the KYREI project.
- Implemented neural networks for segmentation of geographical area upto 80% accuracy using state of art implementations in latest research papers (SSD, R-CNNs)
- Frameworks and Tools Used: Tensorflow, PyTorch, FastAI, pandas, Jupyter Notebooks

RESEARCH EXPERIENCE

BML Munjal University

- Working with Dr. Satyendr Singh (<https://sites.google.com/site/satyendr/>) to apply Deep Learning approaches in Natural Language Processing to Indian Languages and advance the progress of NLP Research in these languages. We find complexities involved with understanding non-English languages and work on handling them.
- Working with Dr. Soharab Hossain (<https://scholar.google.co.in/citations?user=8nues8UAAAAJ>) to study applicability of Deep Learning techniques on EEG Data.

PROJECTS

File System in Python

(April 2018)

- <https://github.com/Naman-Bhalla/os-file-system-python>
- Got understanding of how various parts of an Operating System interact for successful working of a file system. The project implemented a basic Tree Structured File System with a prototype OS.
- Gained experience in laying out the structure of a programming project.

Buffer Pool Manager in Python

(March 2018)

- <https://github.com/Naman-Bhalla/dbms-buffer-pool-manager-python>
- Implemented a Buffer Pool Manager with LRU Replacement Policy in Python as the programming project for the Database Management Systems course.
- Learnt about several Python libraries that allow to work with system calls. Gained knowledge of working of a Buffer Pool in a Database Management System. Understood differences between several Replacement Policies.

Global NIPS Paper Implementation Challenge – Nurture.AI

(December 2017 – January 2018)

- Implemented several papers published at NIPS 2017 in Deep Learning Frameworks like Tensorflow, Keras and PyTorch. Learnt about research experience via regular Office Hours by Expert Mentors.

DNA Analysis

(September 2017 – October 2017)

- Used Python and Data Science libraries including NumPy, Matplotlib to analyze DNA sequences and convert to corresponding Protein Sequences. Did Pair Wise alignment using Dynamic Programming and created scoring matrices. Implemented algorithms to find hydrophobicity plot for the sequences.

Image Recognition using Neural Networks

(August 2017)

- Did this as a project for the Coursera Course on Deep Learning and Neural Networks by Andrew Ng. Used Tensorflow, Python, NumPy to build a Neural Network for image Recognition that could achieve up to 80% accuracy.

Empty Parking Space Detector

(September 2016 – December 2016)

- Did this as a project for “Joy of Engineering” course. Used Arduino and Ultrasonic Sensors to detect presence of object. Embedded C was used to implement the functioning. Gained experience of debugging hardware projects and figuring out the constraints.

INDEPENDENT COURSEWORK

Algorithms Specialization –
Coursera (Stanford)

6.006 – Introduction to
Algorithms (MIT OCW)

6.046 – Design and Analysis of
Algorithms (MIT OCW)

Deep Learning Specialization –
Coursera (deeplearning.ai)

CS 229 - Machine Learning
(Stanford SEE)

CS 231N – Convolutional Neural
Networks (Stanford)

CS 224N – NLP with Deep
Learning (Stanford)

SKILLS AND INTERESTS

Programming Languages: Python (Tensorflow, Keras, NumPy, PyTorch, Matplotlib), Java, C

Tools and Frameworks: Git, IntelliJ, Jupyter Notebooks, Docker, Android Studio

Interests: Deep Learning, Artificial Intelligence, Algorithms