

ABHISHEK LALWANI

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EDUCATION

Bachelor of Engineering (2014- 2018)

Institute - Birla Institute of Technology and Science, Pilani, Rajasthan, India

Specialization - Electrical and Electronics Engineering

CGPA - 7.55

AISSCE (2014)

Institute - M.S.M.S Vidyalaya, Jaipur, Rajasthan, India

Specialization - Science

Percentage - 93.6%

AISSE (2012)

Institute - M.S.M.S Vidyalaya, Jaipur, Rajasthan, India

Specialization - General

CGPA - 10

PROFESSIONAL EXPERIENCE

NVIDIA R&D, Pune, India

Systems Software Engineer (July 2018 - Present)

1. *Gaming AI Assistant Development*: Worked on conceptualizing and developing an AI assistant to aid users during their involvement in a gaming session as well as in a pre-game and a post-game context
2. *Gamebot Development*: Worked on developing a mechanism to capture the unique playstyle exhibited by the user in multiple scenarios of gaming and create a virtual representation of the same using various Deep Learning Algorithms
3. *GeForce Now Browser-Client Development*: Worked on importing the Game Streaming stack of GeForce Now in standard browsers such as Google Chrome thus improving the overall accessibility of the application

Systems Software Intern (July 2017 – Dec 2017)

1. *Object Detection Model Development*: Interned in the ShadowPlay division of the company to develop an intelligent model for detecting objects in gameplay using TensorFlow's Object Detection API in C++
2. *Development of Image Processing methods using OpenCV*: Analyzed gameplay frames using Image processing techniques to extract meaningful information from the gameplay

TEACHING EXPERIENCE

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI

Teaching Assistant of the course Neural Networks and Fuzzy Logic (Jan 2018 - May 2018)

1. *Online Test Development*: Developed online tests and assignments in Python to evaluate the practical knowledge gained by the students of the course
2. *Project Grading Assistance*: Assisted Professor Surekha Bhanot in grading the practical aspect of the Deep Learning projects implemented by students

COURSEWORK

Machine Learning, Neural Networks and Fuzzy Logic, Data Mining, Discrete Mathematics, Object Oriented Programming, Operating Systems, Data Structures and Algorithms, Pattern Recognition, Secure and Private AI by Facebook on Udacity, Deep Learning Nanodegree by Udacity

SKILLSET

C, C++, Java, Python, TensorFlow, Keras, PyTorch, OpenCV, Scikit-Learn, MATLAB, FastAI

ACHIEVEMENTS

- 1. Patent US 16/369,458 - Using Playstyle Patterns to Generate Virtual Representations of Game Players (April 2019) (Pending)**
Using Deep Learning for quantitatively capturing the playing style of a gamer and recreating a virtual representation of it primarily using visual data
- 2. Paper Presentation in NTECH India, 2018 (November 2018)**
A Paper submission titled "Gamebot: AI driven Game Assistant" was selected in the final round of presentations at NTECH, an NVIDIA Internal Tech-Conference
- 3. Udacity Secure and Private AI challenge Nanodegree Scholarship (September 2019)**
Selected in the top 300 students out of a total 14000 applicants for a Udacity Deep Learning Nanodegree scholarship
- 4. Project Showcase Challenge Runner-up (August 2019)**
Achieved 2nd position in the Project Showcase challenge hosted as a part of Secure and Private AI scholarship challenge by Facebook on Udacity
- 5. Student Startup Exposure Program 2018 Finalist (May 2018 - June 2018)**
Made it to the final round of selection in the Student Startup Exposure Program organized by the Rajasthan Government. The idea involved the introduction of E-Prescription in the healthcare sector followed by application of Deep Learning Models to derive meaningful insights from the data collected.

PROJECT EXPERIENCE

- 1. Semantic Art Style Transfer using Keras/ TensorFlow**
Trained and developed a Neural Network (VGG-16) using Keras with TensorFlow back-end for transferring various art styles to different content images
- 2. Smog Detector**
A Smog classifier built by training upon a custom dataset, consisting of 'Smog' and 'Clear' images, put together by the team sg-planet-earth as a part of Secure and Private AI challenge course by Udacity
- 3. Obscenity Detector**
An image classifier for detecting obscenity in an image by classifying the given images into 2 categories, namely NSFW (Not Safe For Work) and SFW (Safe For Work) representing Obscene and Safe content respectively

EXTRA-CURRICULAR ACTIVITIES

1. Publicity Coordinator, Department of Art, Design and Publicity
2. Core Member, Dance Club BITS Pilani
3. Joint Secretary, Marudhara (Rajasthan Cultural Association, BITS Pilani, Pilani Campus)