Aditya Vyas

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EDUCATION

UNIVERSITY OF CALIFORNIA IRVINE, USA
MS in Biomedical Engineering
Sep'18-Jun'20
GPA: 3.6 / 4.0

SHRI G S INSTITUTE OF TECH. AND SCI. INDORE, INDIA
BE in Biomedical Engineering
Honors Degree
Aug'13 - Aug'17
GPA: 7.63 / 10

COURSEWORK

GRADUATE
Machine Learning(ML)
Neural Networks and Deep Learning
Sensory Motor Systems
Organ Transport Systems
Intro To Clinical Medicine
Applied Engineering Math I , II

UNDERGRADUATE
Artificial Neural Network
Medical Image Processing
Programming Tools and Technique
System Designing with Microprocessors
Bio-Informatics
Bio-Mechanics
Biomedical Statistical Signal Processing

SKILLS

TECHNICAL
Python • R • Java • Matlab • LaTeX
C • C++ • HyperMesh • HTML
Libraries:
Keras • Tensorflow • Theano
Scikit-Learn • Numpy • Pandas
Matplotlib • Scipy • PyTorch

INTERPERSONAL
Problem Solving • Teamwork
Time Management • Work Ethic
Public Speaking • Critical Thinking

INTERESTS

Artificial Intelligence • Machine Learning • Data Science • Biomedical Computational Technologies • Computer Vision

EXPERIENCE

MIDMARK CORPORATION | Image Processing/ML Research Intern
Jun'19 - Sep'19 | Torrance, California
- Constructed algorithm for Distance/Height estimation by Stereo Cameras
- Brought down error rate of measurement from 15 % to 1 %
- Designed a future plan to Integrate Machine Learning models to predict Height of disabled person

UC IRVINE | Graduate Teaching Assistant
Apr'19 - Jun'19, Sep'19-Mar'20 | Irvine, California
- Assisted faculty members by conducting discussions, midterm and quiz sections for the undergraduate courses 'Introduction to Software Engineering', 'Java as Second Language', 'Boolean Algebra and Logic'

IICAE | Research Assistant
Dec'17 - Feb'18 | Indore, India
- Performed Finite Element Analysis(FEA) of femur bone for bone-breaking prediction and Completed professional training program in FEA.
- Gathered CT Scans data from several hospitals to increase study power

PROJECTS

SUDOKU SOLVER AI | Nanodegree Project
- Created a Sudoku Solving agent to solve diagonal Sudoku puzzles by using Constraint Satisfaction strategies.

PACMAN AGENT | Nanodegree Project
- Tested search algorithms like DFS, BFS, A-star with varying heuristics on Pacman agent to find food in optimised way.

ADVERSARIAL SEARCH AGENT | Nanodegree Project
- Experimented with adversarial search techniques to play knights isolation, and also solve N-Queens puzzle.

INVISIBILITY CLOAK GUI | Independent Project
- Developed a GUI to generate a invisibility cloak effect in a video by using OpenCV for Image Processing and Tkinter for GUI in python

SNAKE BOT | Independent Project
- Applied Genetic Algorithm and Reinforcement Learning to play Snake Game

SWAY ANALYSIS | Academic Project
- Formulated an analysis method to distinguish postural deformities
- Developed an image processing algorithm with fellow students and coordinated with 10 subjects for its testing

CERTIFICATIONS

- 'Artificial Intelligence Nanodegree', Udacity
- 'Excellence in Engineering Communications ' Activate to Captivate program, UCI
- 'Improv For Teaching', Activate to Captivate program, UCI
- 'Machine Learning A-Z: Hands-on Python and R in Data Science', Udemy