

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

SHRIGS 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 an 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