Sanjay Mohan

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Education

University of California San Diego (Expected Graduation: 2020)

- B.S. in Computer Science
- GPA: 3.93
- Relevant Coursework: Neural Networks, Discrete Mathematics and Algorithms, Data Structures, Intro to Data Science, Honors Calculus and Linear Algebra, Computer Systems, Probability

Los Gatos High School (Graduated: June 2016)

Work Experience

Research Intern (June 2017 – present)
UCSD Antiviral Research Center

- Working in team of two under Professor Benjamin Murrell on various bioinformatics projects
- Developing DNA sequence clustering and template inference algorithms in the Julia Language
- Introduced various optimizations with up to 10x speedups to current codebase
- Implemented hidden Markov model with inference algorithms for sequence processing
- Designed machine learning model to classify critical antibody concentrations with 93% accuracy

Research Intern (January – June 2017)
San Diego Supercomputer Center

- Built deep learning models for predictive protein folding with Python, TensorFlow, and Keras
- Researched use of convolutional and recurrent neural networks in classifying protein structure

Projects

Image Caption Generation
Python, PyTorch

- Implemented encoder-decoder method for generating descriptive text for previously unseen images
- Trained supervised deep convolutional and recurrent networks with sequential attention mechanism

Handwritten Text Recognition
Python

- Awarded First Prize in Category and ASEI Award at Regional Synopsys Science and Technology Fair
- Developed feedforward neural network to classify handwritten digits input into a laptop trackpad
- Trained on MNIST data supplemented with geometrically standardized user input digits
- Achieved 85% test accuracy on hand-created dataset comprised of digits handwritten through trackpad

ConWorld
Java

- Worked in team of 3 using an Object Oriented Programming approach to create side-scroller action game utilizing multithreading, key events, and stable framerate – update loops

Achievements

1st Place – Women In Computing Beginners Programming Competition (November 2016)

- Won competition solving problems in Python through Hackerrank; hosted by UC San Diego Women in Computing, sponsored by Microsoft; competed in team of two against over 100 other teams

Skills

- Experience with Python, Julia, Java, C/C++, TensorFlow, Keras, PyTorch, UNIX, Git