

# Sanjay Mohan

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## Education

**University of California San Diego** (Expected Graduation: 2020)

- ▶ B.S. in Computer Science
- ▶ GPA: 3.925
- ▶ Relevant Coursework: Differential and Integral Calculus, Intro to Java (APCS), Intro to Computer Science, Linear Algebra, Intro to Discrete Mathematics\*, Multivariable Calculus\*, Intro to Data Structures\*, Neural Networks as Models of the Mind\* (\* in progress)

**Los Gatos High School** (Graduated: June 2016)

- ▶ National Merit Scholarship Finalist
- ▶ LGHS Steve Jobs Award for Computer Science

## Projects

**Handwritten Text Recognition** (Dec 2015 – March 2016)

Python (Anaconda Accelerate, NumPy)

First in Category Award at the Synopsys Regional Science Fair

- ▶ Trained a small three layer neural network (784, 100, 10) to recognize digits handwritten on a laptop trackpad.
- ▶ Implemented in Python and NumPy, coding the gradient descent and backpropagation algorithms from scratch.
- ▶ Initially trained on MNIST dataset, and found that its accuracy in recognizing digits handwritten on the laptop trackpad was less than 50%. On inspection, I found that the images captured through the trackpad looked significantly different from the MNIST samples. I manually generated my own labelled samples and supplemented this by artificially generating more data by applying geometric distortions and transformations. Eventually achieved a classification accuracy of 85%.

**Kaleidoscope** (July 2015)

Java

- ▶ Implemented a depth-first search solver for tiled puzzle game “Kaleidoscope” with animated GUI

**2048** (June 2015)

Java

- ▶ Reconstructed a desktop version of the popular mobile game with animated GUI

**ConWorld** (May 2015)

Java

- ▶ Worked in a team of 3 to create a side-scroller action game utilizing multithreading, key events, and object oriented programming

## 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

## Work Experience

**Intern** (Aug 2016 – Sept 2016)

Fox, Wang, and Morgan P.C. Employment Law Firm

- ▶ Data Entry in Google Spreadsheets

## Skills

- ▶ Experience with Java, Python, Theano, UNIX