Justin Stitt

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*Budding **Computer Scientist** with a fascination for problem-solving and solution-based programming. Strong stand-alone work ethic with proficiency in leading and communicating with others.*

EDUCATION

CALIFORNIA STATE UNIVERSITY, FULLERTON — **Fullerton, CA**
Computer Science, B.S. — *August 2019 - May 2023*
GPA: 3.4, STEM GPA: 3.7

WORK EXPERIENCE

GOOGLE — **Virtual**
STEP Intern — *May 2021 – August 2021*
- Perform analysis on internal data to determine usefulness within a binary classifier feature space using SQL and Python.
- Preprocess, slice, and organize data for use as input and labelling features using prominent Python packages such as Pandas and NumPy, amongst others.
- Utilization of TensorFlow to design, train, and evaluate a neural network's performance across various metrics to improve advertiser experience through the reduction of overflagging and automated appeals prediction.

CALIFORNIA STATE UNIVERSITY, FULLERTON — **Fullerton, CA**
Supplemental Instruction Leader — *August 2020 – Present*
- Organize and conduct bi-weekly sessions that facilitate and encourage valuable peer-to-peer discussion
- Prepare learning material in accordance with the subject matter being taught during lectures.
- Communicate complex topics regarding C++ and data structures to groups with varying levels of understanding.

PROJECT EXPERIENCE

Source code available @ github.com/JustinStitt/

TUFFYHACKS 2021 - WINNER: BEST OVERALL — *March 2021*
Conscious Camper: A sustainability passion project completed in under 24 hours!
- Utilization of Google's Places API, OpenWeather API, and a machine learning model to evaluate potential campsites.

UNIX SHELL — *Feb. 2021*
A custom UNIX shell implemented in C
- Creation of vanilla UNIX shell using C and internal Linux libraries.
- Programmatic input sanitization with I/O redirection, piping, and multiprocessing.

INSTAGRAM PHILOSOPHY BOT — *Oct. 2020*
Creates new philosophical quotes and posts them to Instagram
- Scraped XML and HTML web data using Python to build a philosophical corpus.
- Use of Markov chain to generate new philosophical quotes and post them to Instagram overtop a nature-themed image.

SOCIAL DISTANCING SIMULATOR — *May 2020*
A Python simulation of how social distancing "Flattens the Curve"
- A physics-based simulation designed in Python that correlates collisions to real-time infections. Simulation allows the modification of a "social distancing ratio" that corresponds to the number of people staying at home.
- My findings showed that it takes just under 300 days for all subjects to become infected with a 10% social distancing ratio and around 1,000 days with a 70% social distancing ratio.

MOBILE APP — *Dec. 2017*
A colorful mobile game that requires precise timing and strategy!
- Create and publish mobile game to the Apple and Google Play store using Unity with source code written in C#.
- Coroutine-based gameplay events with in-app purchases and customization.

MACHINE LEARNING ENDEAVORS — *Oct 2016 - Present*
Some of my self-taught machine learning journey!
- Studied deep learning, created a physical 3D model to visualize gradient descent then implemented a Deep Q-Network using PyTorch. Trained using OpenAI's Gym across multiple environments.
- Design and implement a genetic feed-forward Neural Network in Python without the use of an ML library.
- Create a digit recognizer utilizing TensorFlow and the MNIST data set. Then design a user interface to allow MS-paint style drawing. The model predicts which digit you've drawn with surprising accuracy.
- Design and train a Convolutional Neural Network to play Atari classics (e.g. Breakout) with reasonable success.

SKILLS

RELEVANT COURSEWORK: Object-Oriented Prog., Data Structures, Computer Organization and Assembly Lang., Technical Writing for Computer Science, Algorithm Engineering, Operating System Concepts, Prof. Ethics in Computing, Compilers and Languages, File Structures and Databases, Statistics Applied to Natural Science

PROGRAMMING: C++, Python, Julia, Ruby, Java, JavaScript, C#, C, SQL, Machine Learning, TensorFlow, PyTorch, OpenAI, Unity, NumPy, Pandas, React, Flask, Django, Multi-Threaded Computing, UX Design, Game Development, Data Analysis, Dynamic Programming, HTML5, CSS, HAML, Algorithm Design, Jupyter, Pluto.jl