Justin Stitt

github.com/JustinStitt/
jkstitt@csu.fullerton.edu
Coto de Caza, CA
949.584.6723
linkedin.com/in/JustinStitt

*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. GPA: 3.6 — *August 2019 - May 2023*

WORK EXPERIENCE

GOOGLE — **Mountain View, CA**
SWE Intern — *May 2022 – August 2022*
- Contribute patches to the Linux Kernel to further enable Clang/LLVM build support.
- Optimize LLVM build times for the Linux Kernel.

GOOGLE — **Remote**
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 labeling features using Python packages such as Pandas and NumPy.
- Improve advertiser experience and secure revenue for Google through the automation of appeals prediction as well as the reduction of overflagging.
- Utilize TensorFlow to design, train, and evaluate a neural network's performance across various metrics.

CALIFORNIA STATE UNIVERSITY, FULLERTON — **Fullerton, CA**
Supplemental Instruction Leader — *August 2020 – Present*
- Communicate complex topics regarding C++ and data structures to groups with varying levels of understanding.

PROJECT EXPERIENCE

TUFFYHACKS 2021 & 2022 - WINNER: BEST OVERALL — *March 2021, March 2022*
Conscious Camper (2021): A sustainability passion project completed in under 24 hours!
- Implement Google's Places API, OpenWeather API, and a machine learning model to evaluate potential campsites.

CryptoClicker.org (2022): A fun and interactive experience created in under 24 hours demonstrating the strain that crypto currency has on our planet.
- Procedurally generate a planet model that decays overtime due to the thinning atmosphere caused by Bitcoin mining.

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

PHILOSOPHY AI — *Oct. 2020*
Generates new never-before-seen philosophical quotes and posts them to Instagram
- Scrape XML and HTML web data using Python to build a philosophical corpus.
- Use a 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"
- Design a physics-based simulation 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.

TOIP - 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

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, Svelte.js