

TYLER LABONTE

Los Angeles, CA | tlabonte@usc.edu | tmlabonte.github.io | medium.com/@tmlabonte | github.com/tmlabonte | (808) 597-0493

EDUCATION

University of Southern California, Viterbi School of Engineering

Bachelor of Science, Computer Science

Minor in Statistics

Los Angeles, CA

May 2021

GPA: 3.82

- USC Trustee Scholarship (top 2% of USC Class of 2021)
- USC Viterbi Fellowship (top 6% of Viterbi Class of 2021)

SKILLS

Languages: Python, Java, C++, Javascript, HTML/CSS

Software: TensorFlow, Keras, Scikit-Learn, Linux CLI, Git, LaTeX

EXPERIENCE

Air Force Maui Optical and Supercomputing Site (AMOS)

Kihei, HI

Deep Learning Research Intern

June 2018 - August 2018

- Used TensorFlow-Serving to develop a lightweight, RESTful remote inference library for decoupling deep learning development and application, enabling model usage on classified networks, IoT devices, and production systems.
 - Offset \$150,000 of machine learning engineer salary time via project completion months ahead of schedule.
- Utilized TensorFlow to design a generative adversarial network (CycleGAN) to impose organic deep-space noise profiles on anomalous priors, augmenting existing Faster R-CNN algorithm for satellite detection.
- Communicated my research at two symposium talks to technical audiences of 50+.

USC Data Science Institute/Integrated Media Systems Center (DSI/IMSC)

Los Angeles, CA

Undergraduate Researcher

September 2017 - May 2018

- Used Keras and Scikit to develop machine learning algorithms to predict graft futility in liver transplantation patients.
 - Achieved an AUROC of 0.74 with deep neural network/random forest ensemble model.
- Reduced entries in “dirty dataset” by 93% through preprocessing and cleansing, resulting in 22,000 usable entries.
- Applied F1/AUROC to evaluate models including neural networks, support vector machines, and random forests.
- Wrote and researched sections of conference paper (Stanford ML for Healthcare) and project/funding proposals.

PROJECTS

PageRank Simulator

Final Project, CS104: Data Structures

- Used C++ to simulate a webpage dataset and implement the PageRank algorithm.
 - Developed a crawler to autonomously discover relevant webpages using depth-first search.

World's Stage

SB Hacks IV Hackathon, University of California Santa Barbara

Ethical Hacking Finalist (top 20 out of 4500 projects from dozens of MLH hackathons)

January 2018

- Utilized JavaScript to implement and combine the YouTube API and Google Maps API.
 - Enabled users to explore cultural differences in dance through access to undiscovered cover videos.

Compute

October 2017 - November 2017

- Used JavaScript to program an incremental game whose progression is governed by a series of exponential functions.
 - Devised a method to gather efficiency data from web app and export to a spreadsheet for analysis.

LEADERSHIP

USC Hawaii Club Executive Board

Los Angeles, CA

Vice President of Finance

August 2018

USC Viterbi Adopt-a-School/Teacher (USC VAST)

Los Angeles, CA

Robotics Coordinator

January 2018 - Present

- Initiated a \$22,000 grant application to bring Sphero robotics to three inner-city elementary schools.
- Led five USC volunteers and designed curriculum for Sphero outreach session, educating 30 teachers in basic coding.
- Coordinated LA schools, USC laboratories, and student groups for annual Robotics Open House with 2,400 attendees.

USC Viterbi STEM Educational Outreach

Los Angeles, CA

Volunteer VEX Robotics Mentor

December 2017 - Present

- Established and mentored a middle school VEX Robotics team of four female minority students.
- Led growth of program to include a competitive team and training team, with three additional USC volunteers.