TYLER LABONTE

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

EDUCATION

University of Southern California, Viterbi School of Engineering — **Los Angeles, CA**
Bachelor of Science, Computer Science — **May 2021**
Minor in Statistics — **GPA: 3.93**

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

SKILLS

Languages: Python, Java, JavaScript, C/C++, HTML/CSS
Software: TensorFlow, Keras, Scikit-Learn, Linux CLI, Git, LaTeX

EXPERIENCE

Air Force Maui Optical and Supercomputing Laboratory — **Kihei, HI**
Incoming Deep Learning Research Intern — **June 2018**
USC Data Science Institute (DSI) — **Los Angeles, CA**
Undergraduate Researcher — **September 2017 - Present**

- Used Python to develop machine learning algorithms to predict graft futility in liver transplantation patients.
    - Applied F1/AUROC to rank 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.

Mililani High School VEX Robotics — **Mililani, HI**
Lead Programmer — **August 2015 - May 2017**

- Achieved 1st place in two consecutive years at SkillsUSA Hawaii Mobile Robotics, 2nd place at international Pan-Pacific Championships, and 1st place at the Hawaii State Championships, qualifying team for Worlds.
- Utilized Autodesk AutoCAD and Inventor to streamline prototyping process, leading to an Innovate Award
- Deployed C to create autonomous robot code for subsystems such as drivetrain, arm, and claw/shooter.
    - Developed optimization algorithms such as take-back-half (TBH) and proportional-integral-derivative (PID).
- Mentored three underclassmen in programming and electrical systems throughout robotics season.

PROJECTS

World's Stage — **SB Hacks IV Hackathon, University of California Santa Barbara**

- Utilized JavaScript to implement and combine the YouTube API and Google Maps API. — **January 2018**
    - 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.

USCalendar — **TrojanHacks Hackathon, University of Southern California**
Honorable Mention — **September 2017**

- Applied JavaScript to program an automatic push notification system for course tracking website.

LEADERSHIP

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.
- Coordinated LA schools, USC laboratories, and student groups for annual Robotics Open House with 2,400 attendees.
    - Directly supervised group of 8 student volunteers among 6 laboratories.

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.

Japan International Karate Center — **Oahu, HI**
Assistant Instructor — **August 2013 - May 2017**

- Earned third-degree black belt after 12 years of training, along with the Sensei Clarice Tsuchiya Spirit Award.
- Earned five medals at the USA Karate National Championships, including a gold medal in Advanced Kata.