Hayden Shively

3131 S Hoover St, Suite 2505, Los Angeles, CA 90089
hshively@usc.edu ~ (636) 686-0271

EDUCATION

B.S. in Aerospace Engineering, Minor in Product Design expected May 2022
GPA: 3.80/4.0, Presidential Scholarship, W.V.T Rusch Honors Program
University of Southern California

High School Diploma May 2018
GPA: 4.73/4.0, Valedictorian, National Merit Scholar, Science Student of the Year
Westminster Christian Academy

SKILLS

Tools | OpenCV, NumPy, TensorFlow, Keras, PyTorch, VTK, P5.js, git, nano, tmux
Applications | SolidWorks, Autodesk Inventor, Adobe Creative Suite, Xcode, Unity, Blender
Languages | Python, Swift, Java, Javascript, HTML, CSS, Matlab, Spanish (Fluent)
Platforms | Linux, macOS, Windows, ROS (Robot Operating System), Arduino, Nvidia Jetson

WORK EXPERIENCE

Full Stack App Developer - USC Marshall School of Business 11/2018-Present
Spearheaded creation of iOS App for the Coury Leadership Program, fully integrated with Firebase
Explained the app design process to business-minded client and mentored other developers

Professional Consultant - Real-Estate Development 10/2019-Present
Applied data analytics to promote the development of a professional soccer stadium in Buffalo NY

PERSONAL PROJECTS

USC Dining Hall App, "Trojan Dining," for iOS
Attained hundreds of downloads and consistent usage despite $0 advertising budget
Designed, built, and maintained, all while taking 6 courses and participating in 3 clubs at USC

Leap Motion Plugin for SolidWorks
Implemented framework for gesture-based manipulation of CAD models, an alternative to 3D mice
Matched state-of-the-art performance for hand tracking despite fewer model parameters
Custom convolutional neural network tracks finger pose at 60fps using webcam

LEADERSHIP EXPERIENCE

Project Lead - CAIS++ (Center for AI in Society) 02/2019-Present
Managed team that analyzed 20,000 homeless individuals, allowing LA to provide more targeted care
Collaborated with linguistics laboratory to diagnose Parkinson's Disease using videos of the tongue

Systems Programming Lead - USC Autonomous Underwater Vehicle Team 2018-2019
Taught and worked with graduate students who were experiencing robotics for the first time
Ensured that the submarine performed tasks as expected, via closed-loop control algorithms

Graphic Design Lead and Programming Mentor - FIRST Robotics 2016-2018
Led the creation of unified team design standards, revamped website layout, shirts, and sweatshirts
Won the Innovation in Control Award for field-oriented control of a swerve-drive robot (3 DoF)