# Kyle Massie

Los Gatos, CA 95030
kylejmassie@gmail.com | 408-348-7611
www.linkedin.com/in/kyle-j-massie

## EDUCATION

**Purdue University**
*Junior Computer Engineering, BS | GPA: 3.18*
Expected Graduation: May 2025
West Lafayette, IN

**Completed Coursework:**
Advanced C Programming, Python for Data Science, Digital System Design Lab, Electrical Engineering Fundamentals, Physics

**Current Junior Year Curriculum:**
Data Structures, Object Oriented Programming, Signals and Systems, Computer Security, Networks, Microprocessor Systems, ASIC Design

## EXPERIENCE

**Aston Martin Racing Electrical and Data Acquisition Engineer Intern**
*Heart of Racing Team*
USA
May - July 2023

- Conducted performance data analysis using Cosworth software tools
- Developed Bash scripts to streamline data transfer and analysis in MATLAB
- Created algorithms in C to display essential driver data to the ICD
- Assisted in calibrating and testing data acquisition systems: ECU & IPS
- Pivotal role in troubleshooting/resolving electrical & software issues during testing and race time

## PROJECTS

**Predicting NBA Games Using Different Machine Learning Classifications |** *Python*
- Analyzed 6 seasons of NBA game stats to predict game outcomes from over 3M data points
- Utilized ridge, random forest, and logistic regression for classification
- Achieved prediction accuracy ~17% above baseline (73%)

**Audio Equalizer |** *Hardware*
- Designed, constructed, and tested an audio equalizer using filters and op-amps
- Presented technical report, theory, and design of components to professor

**Purdue IEEE Software Saturdays |** *CSS, HTML, ReactJS*
- Engaged in comprehensive web development training, focusing on advanced frameworks
- Developed a personal website, with ongoing enhancements to be incorporated

**Circuit Design |** *MATLAB*
- Created an algorithm for signal analysis: wave shape RMS, frequency, FFT plots
- Researched components to improve the clarity of signals

**Huffman Encoder** | *C*
- Implemented compression algorithms to reduce file size
- Used priority queues, binary trees, and several data structures for speed and memory optimization

**Additional Projects**
- Racing line optimization | *Python*
- Rolling Stock Predictor | *Python & Excel*
- Chess | *C++*
- JSON Decoder | *C*
- Spaceship lander simulation on STM32| *C*
- Wordle | *MATLAB*
- DJ Drum Machine | *Verilog*

## LEADERSHIP

**Saratoga High School Boys Varsity Soccer + DeAnza Force Academy Soccer**
Team Captain for a combined 7 years
Saratoga, CA
2009 - 2020

## SKILLS & PROFESSIONAL DEVELOPMENT

**Languages:** Python, C, MATLAB, Verilog, Bash, C++, HTML, JavaScript, CSS, SQL,
**Development Tools:** ReactJS, GitHub & Git, Matplot.lib, Numpy, Pandas, Cosworth Toolbox, Microsoft Office Suite