# HRISTOPHER TOMASETTA

# SELECTED EXPERIENCE

### APPLE | iPhone Product Design Engineer

June 2016 - present

Drove the development of system designs from the architecture phase to mass production. Reduced expected glass crack rates by 4x using FEA design iteration to minimize impact stresses, failure analysis to focus design and manufacturing resources, and process improvements to increase assembly robustness. Qualified a new material supply chain to increase material utilization, eliminating ~1kg of CO<sub>2</sub> emissions per unit while also improving final dimensional capability beyond the previous year's performance. Directed cross functional teams to deliver features & modules that integrate with the system and industrial design targets.

# APPLE | MacBook Manufacturing Design Intern

June 2014 - Sept 2014

Increased laptop housing yield from 28% to 96% by troubleshooting subsystem assembly, glue dispensing, and housing assembly processes. Designed & prototyped assembly fixtures. Developed measurement techniques to ensure quality parts. Performed DOE's to optimize glue dispensing & assembly. Implemented machine qualifications to maintain consistent performance.

# **TESLA MOTORS | Mechanical Engineering Intern**

#### June 2013 – Sept. 2013

Redesigned, prototyped and tested an EOL tool that eliminates extra manufacturing processes. Prototyped and sourced battery components. Designed fixture to streamline battery pack assembly and validate manufacturing processes. Supported battery manufacturing and design teams by working with suppliers and material handlers, providing feedback to designers, and investigating field failures.

# STANFORD SOLAR CAR | Mechanical Designer

January 2012 – June 2014

Designed and manufactured a pedal and brake assembly that survived a 3000km race through the Australian outback. Designed mechanical linkages to connect the suspension to the vehicle frame. Worked with a team to design and manufacture a device that measures rolling resistance in a tire.

# STANFORD PRL | TA & Model Shop Specialist

September 2014 - June 2016

Received the 2015 Centennial TA Award. Guided students through the design & manufacturing process as they worked to create a high-resolution final product. Taught students how to safely use different manufacturing processes through hands on labs.

# FDUCATION

### STANFORD UNIVERSITY

**M.S. Mechanical Engineering** Class of 2016 / Grad GPA 3.91 Mechatronics & Manufacturing Focus

#### **B.S. Mechanical Engineering**

Class of 2014 / Cum GPA 3.74 In-major GPA 3.92

### **RELEVANT COURSEWORK**

Design and Manufacturing Computer Programming Vehicle Dynamics Control Systems **Mechatronics** 

SKILI S

### **PROGRAMMING LANGUAGES**

C, C++ Python HTML

### SOFTWARE PACKAGES

Seimens NX SolidWorks CATIA JMP Fusion 360 MatLab Adobe Creative Suite

### LANGUAGES

Spanish – home background

### **BUILDING AND MODELING**

**CNC** Vertical Mill Manual mill and lathe Injection Molding Sandcasting Investment Casting TIG, Oxy welding, and brazing Laser cutter and etcher Woodworking 3D printing, rapid prototyping