

THOMAS WUCHERPFENNIG

thomas-wucherpennig.com
twucherp@gmail.com
617 277 1322

EDUCATION

Carnegie Mellon University

Bachelor of Science, May 2015

Major in Mechanical Engineering

Minor in Industrial Design

GPA 3.89/4.0

WORK EXPERIENCE

Artemis Racing 35th America's Cup

Draftsman, Summer 2015-Present

Alameda, CA

Hamilton, Bermuda

- Create drawings for a large number of components of AC50 racing yacht and AC45 test yacht, including hulls, wing flaps, dagger boards, and rudders
- Generate kinematic model of wing and wing control system for AC50 racing yacht
- Develop aerodynamic model of AC50 racing yacht for simulating a wide range of fairing geometries in order to optimize performance

Tesla Motors

Vehicle Engineering Intern, Fall 2013 and Summer 2014

Fremont, CA

- Rear bumper beam low speed crash analysis for Model X
- Development of front underbody aerodynamic shield for Model X to reduce drag and protect front subframe and battery pack
- Designed headlamp and front fender brackets for Model X
- Developed and conducted durability and reliability tests for Model S front end components
- Designed and sourced parts for Model S right hand drive and dual motor prototype vehicles

Courageous Sailing Center

Instructor and Race Coach, Summer 2012 and 2013

Boston, MA

- Taught sailing to 10-18 year old children in Boston Harbor

PROJECTS

Formula Society of Automotive Engineers

Systems Leader and Executive Board Member, 2011-2013

- Designed and created model of racecar body panels in Solidworks
- Led the fabrication of carbon fiber body panels
- Employed resin infusion technology to improve quality and reduce weight of body panels
- Involved in overall design and layout of racecar systems
- Managed team members and resources for design, fabrication, and testing of the racecar

Grasshopper Micro Robot Spring 2013

- Project for graduate micro robotics class involving design, fabrication, and testing of jumping grasshopper micro robot
- Developed innovative shape memory alloy spring system for increased performance

Amateur Rocketry 2006-2014

- Designed and built many high power rockets with multiple stages, electronically controlled parachute deployment systems, and radio and GPS tracking beacons
- National Association of Rocketry Level 2 High Power Certification
- Team America Rocketry Challenge National Finalist, Spring 2010

SKILLS

Software – Catia V5, AutoCAD, MATLAB, SolidWorks, Photoshop, Illustrator, Microsoft Office

Machines – Table Saw, Miter Saw, Band Saw, Mill, Lathe, Joiner, Planer

Languages – Fluent German, Proficient Spanish

ACTIVITIES**Photography** 2011-Present

- Nature and landscape photography using large and medium format film cameras
- Developing film negatives and silver gelatin prints in a darkroom

Sailing 2006-Present

- US Sailing Keel Boat Instructor Certification, Summer 2013
- US Sailing Small Boat Level One Instructor Certification, Summer 2012
- Belmont Hill High School Sailing Team, 2009-2011
- Alvimedica Volvo Ocean Race Team Shore Crew Volunteer, Summer 2015

Swimming 2006-Present

- Compete in open water races and currently a member of the Bermuda amateur swim and triathlon team

Running 2015-Present

- Compete in road and trail races and run an average of 30-40 miles a week

HONORS

College of Engineering Dean's List, Fall 2011-Spring 2015

Magenta Foundation Exhibition Why People Photograph, Summer 2015

National Summa Cum Laude Society, 2011