

Thomas M. Liggett

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Education

Northwestern University
B.S. Mechanical Engineering
B.S. Manufacturing and Design Engineering (MaDE)

GPA: 3.5
June 2017

Skills

Human Languages: English, Spanish
Computer Languages: C/Arduino, C++, MatLab, Java, G-Code
Fabrication: Laser Cutting, FDM, SLA, IM, Mill, Lathe
CAD Packages: AutoCAD, NX, SolidWorks, Catia, Fusion 360

Engineering Employment History

- Tesla, Inc. August 2017-Present
- Mechanical Engineer in Low Voltage & Systems Engineering
- Ford Motor Company June 2016-September 2016
- Intern in Product Development, Body Interior working as a D&R engineer in IP & Console
 - Participated in design reviews, FMEA, and weight-save analyses for floor console of upcoming Escape
 - Responsible for floor console's rear panel across global regions and levels
- Inventables, Inc. June 2015-September 2015
- Product Development Summer Intern, aided in development of three-axis motion controller for CNC mill
 - Wrote test procedures for validation of PCB units and debugged PCB designs
 - Designed original components launched into 10,000+ unit mass production
- Primus Power, Inc. June 2014-September 2014
- Summer Intern in the Operations Department in pilot assembly line development
 - Assembled engineering units of 70kWh bromine-flow batteries in clean room environment
 - Composed build books for future units to track progress, test results, and serial numbers

Engineering Experience

- BiliSense January 2017-March 2017
- Developed safe, low-cost jaundice treatment device that allows concurrent swaddling of infant
 - Worked in Cape Town, South Africa with partner and local entrepreneur/inventor
 - Designed for local manufacturing and sourcing constraints, carried out user testing
- Sea Rover June 2013-June 2016
- Designed an autonomous ocean vessel with team of six to navigate 1000+ miles
 - Personally programmed navigation, communication, and propulsion systems with Arduino
 - Raised \$2,400 on Kickstarter to fund project

Leadership Experience

- Vice President and House Manager of the Delta Chi Fraternity September 2014-March 2016
- Responsible for physical fraternity house maintenance, resupply, and safety
 - Managed 17 chairmen tasked with planning social, brotherhood, recruitment, and philanthropic events
 - Implemented house duties and accountability system for residents
- Boy Scouts of America October 2009-June 2013
- For Eagle Scout leadership project, built three bulletin boards for under-resourced school
 - Fundraised \$780 from piano playing toward project
 - Taught younger Scouts construction techniques to build boards

Avocations

- Three trips to Guatemala for service, specifically construction
- Eight trips to Mexico for construction and community outreach
- Donut Club (fundraising for food pantry) and Melodies for Charities (musical charity)
- Jazz combo (keyboard) for weddings, parties, and community events