Richard D. Lehner

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OBJECTIVE

I am a fast learner and team oriented person who is interested in working with a group of motivated individuals. I would like the opportunity to intern in a high demand aerospace environment for the Spring or Summer of 2017.

EDUCATION

Georgia Institute of Technology — **Atlanta, Georgia**
Expected Graduation: May 2017

- Bachelor of Science in Mechanical Engineering (GPA 3.40)
- Captain of Varsity Swim & Dive Team (2015-2016)
- Vice President of Student Athlete Advisory Board (40+members) (2015-2016)
- Faculty Honors (2013), Dean's List (2012, 2013, 2014, 2015, 2016)
- 2 time Collegiate Scholar All American, 2 time ACC Academic Honor Roll
- Member of the Ramblin' Rocket Club – Designed and Launched Level 1 rockets (2016)

EXPERIENCE

McKenney's Incorporated, *Internship in Energy Services* — **Atlanta, Georgia**
Summer 2015 & 2016

- Did modeling analysis for prospect buildings in Metro Atlanta to estimate their utility savings
- Understand refrigeration cycle and equipment used in large HVAC systems (ie. Chillers, AHUs, etc..)
- Used blueprints and technical drawings to identify areas wasting energy and communicate those areas to technicians
- Developed an understanding for Building Controls and analyzed thousands of data points using Excel and VBA
- Learned how to track Project Orders, billings, and payments

Butterflies Drafting to Oscillating Airflow, *Georgia Tech Undergraduate Researcher* — **Atlanta, Georgia**
Fall 2015

- Observed butterflies react to 12 different oscillating airflows measuring their amplitude and frequency
- 87% of butterflies flying in an air oscillation above 20Hz changed their flight pattern
- Wrote reports, and graphed data

Fluid Mechanics of the Flying Fish, *Georgia Tech Undergraduate Researcher* — **Atlanta, Georgia**
Spring 2015

- Studied how the Flying Fish and Basilisk Lizard leap from the water's surface without much momentum
- Worked with a partner to design and build a device that measures wave drag at different water depths
- Recorded motor voltage to measure changes in torque and drag

Fluid Dynamics of Defecation, *Georgia Tech Undergraduate Researcher* — **Atlanta, Georgia**
Summer & Fall 2014

- Built multiple devices to create ways to observe radial progression of feces under pressure
- Trained on how to handle Biohazards
- Our team found viscosity could be calculated by rearranging Reynolds number instead of using rheometry
- Compared 40+ animals to form relationships in fecal viscosity based on their diet and size

Cedar Creek Swim Team, *Assistant Coach* — **Lilburn, Georgia**
Summer 2011 & 2013

- Teach kids how to swim, pool maintenance, prioritized safety, CPR certified

COURSE PROJECTS

Creative Decisions and Design

- Our team of four designed and built an automated robot that performed certain tasks in a restricted amount of time
- We finished 3rd in a tournament against 24 other teams
- Wrote reports and learned techniques for design

Heat Transfer

- Developed a model in MATLAB predicting the temperature of a cylinder made of silicon carbide when exposed to a solar flux
- Our team of four took a finite differencing approach to solving for the temperature distribution within the cylinder
- We wrote a report of our findings and how we came to our conclusion

SKILLS

Instrumentation: Lathes, Milling Machines, Drill Presses, Band Saws, Dremels, Soldering, Planers, Oscilloscope, 3D Printer
Material: Phase Diagrams, Manufacturing Processes, Stress and Strain, Electrical Properties, T-S Diagrams
Fluid Dynamics: Pressure, Viscous Flow, Bernoulli Equation, Finite Control Volumes, Potential Flow (Compressible Flow, and Incompressible Flow), Laminar Flow, Turbulent Flow, Turbines, Turbomachines, Navier-Stokes Equations
Software: MATLAB, Python, Tracker, Auto CAD, Inventor, SolidWorks (Novice), Microsoft Office Suite, Macintosh OSX, Windows 7,8&10, VLAB, Visual Basic for Applications (VBA), Splunk, RStudio

ATHLETICS

NCAA Division 1 Athlete, *Georgia Tech Men's Varsity Swim Team* — *August 2012 – Summer 2016*

- Leadership Council (2014-2015), Representative on the Student Athlete Advisory Board (2013-2016)
- Part of highly competitive team training 20 hours a week. Developed skills in teamwork, leadership, communication, discipline, dedication, and attention to detail.
- Competed at ACC championships all 4 years, competed at the NCAA championships 2 times
- Awards: 2014 Most Improved, Team Record holder in the 400 Medley Relay, Qualified for Olympic Trials 2016

High School, and Club Swimming, *Parkview and Swim Atlanta* — *August 2009 – May 2012*

- High school team captain and Georgia State Champions (27 competing teams) (2012)
- Awards: Competed in 2012 Olympic Trials, HS MVP, State Record Holder, 3 time Bronze medalist at Junior Nationals (2011)