 **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, and am looking for the opportunity to intern in a high demand aerospace environment for the Spring or Summer of 2017.

**EDUCATION**

**Georgia Institute of Technology** **Atlanta, Georgia**

* Bachelor of Science in Mechanical Engineering (GPA 3.40) Expected Graduation: May 2017
* 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**

* Did modeling analysis for prospect buildings in Metro Atlanta to estimate their utility savings *Summer 2015 & 2016*
* 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 TechUndergraduate Researcher** **Atlanta, Georgia**

* Observed butterflies react to 12 different oscillating airflows measuring their amplitude and frequency *Fall 2015*
* 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 TechUndergraduate Researcher** **Atlanta, Georgia**

* Studied how the Flying Fish and Basilisk Lizard leap from the water’s surface without much momentum *Spring 2015*
* 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 TechUndergraduate Researcher** **Atlanta, Georgia**

* Built multiple devices to create ways to observe radial progression of feces under pressure *Summer & Fall 2014*
* 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**

* Teach kids how to swim, pool maintenance, prioritized safety, CPR certified *Summer 2011 & 2013*

**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 a 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)