



# Andrew Oliver

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ADVISOR/MENTOR: Dr. Sabick  
SPONSOR/GRANT: Dr. Sabick  
PROGRAM START: Summer 2018

## BIOGRAPHY

Andrew Oliver is from St. Louis, Missouri. He is a biomedical engineering major and graduate student who plans to graduate in Spring 2019 with his master's degree. He has been working for the past three years on baseball pitching related research under Dr. Sabick. Andrew was able to conduct his own study on timing in pitching mechanics using data collected by graduate student Jacob Howenstein and present his findings at the Biomedical Engineering Society Conference in Phoenix, Arizona. Andrew has always enjoyed studying and analyzing human performance in sports and thoroughly enjoys applying this passion to baseball pitching. After graduation, he hopes to work in the sports performance or medical device industries.

## RESEARCH

Andrew's current research area is in the biomechanics of baseball pitching. The current study aims to find ways to minimize the torque and stress that the shoulder and elbow undergo during pitching in youth baseball. The torso and hip motions are being analyzed for their roles in this system and ways to maximize their efficiency. Inertial measurement units are being utilized for data collection in a way that can replace motion capture systems and allow for immediate feedback to pitchers.



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