# **Ryan Alcantara**

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#### **EDUCATION**

2017-Pres M.Sc. in Integrative Physiology – University of Colorado Boulder

Advisor: Dr. Alena Grabowski – Applied Biomechanics Lab

2011-15 B.Sc. in Applied Human Biology, Kinesiology Minor – Seattle Pacific University

Advisor: Dr. Cara Wall-Scheffler

#### PROFESSIONAL EXPERIENCE

2018-Pres Graduate Research Assistant – University of Colorado Boulder

Funding Organization: NCAA PAC 12 Conference

2017-18 Graduate Teaching Assistant – University of Colorado Boulder

Human Anatomy Laboratory, Department of Integrative Physiology

2016-17 Biomechanics Research Technician – Brooks Running Company

Lab Director: Eric Rohr. Performed 3D motion capture data collections, developed custom

MATLAB scripts for data analysis, reported findings to Footwear R&D teams.

2015-16 Biomechanics Lab Intern – Brooks Running Company

Lab Director: Eric Rohr. Assisted with mechanical footwear testing, subject recruitment, and

data processing in Cortex and Visual 3D.

2015-16 Research Assistant – Seattle Pacific University

Principal Investigator: Dr. Cara Wall-Scheffler. Developed undergraduate research study,

performed subject recruitment, data collection, analysis, and prepared academic manuscript.

2014-15 Teaching Assistant – Seattle Pacific University

Introductory Physics I & II

#### **HONORS & AWARDS**

2018	Diversity Travel Award, American Society of Biomechanics (\$750)
2018	Best MSc Poster Presentation, American Society of Biomechanics – Rocky Mountain Meeting
	Mass added to running-specific prosthesis increases metabolic power during running (\$100)
2018	Graduate Student Travel Grant, University of Colorado Boulder
	Mass added to running-specific prosthesis increases metabolic power during running (\$300)
2017	Graduate Dean's Fellowship, University of Colorado Boulder (\$3,000)
2012	Oregon Latino Scholarship, Hispanic Metropolitan Chamber of Commerce (\$2,250)
2011-2015	President's Scholar Award, Seattle Pacific University (\$12,000/year)

#### PEER-REVIEWED PUBLICATIONS

**Alcantara R.**, Trudeau M., Rohr E. (2018). Calcaneus range of motion underestimated by markers on running shoe heel. *Gait* & *Posture* 63: 68-72

**Alcantara R.** & Wall-Scheffler C. (2017). Stroller Running: Energetic and kinematic changes across pushing methods. *PLoS One* 12(7): e0180575.

#### CONFERENCE PRESENTATIONS

**Alcantara R.,** Day E., Hahn M., Grabowski A. (2019). Sacral Accelerations Predict Whole Body Kinetics and Stride Kinematics During Running. *American Society of Biomechanics, Rocky Mountain Meeting.* (podium)

**Alcantara R.,** Beck O., Grabowski A. (2018). Mass added to a running-specific prosthesis increases metabolic power during running. *American Society of Biomechanics, National Meeting.* (thematic)

**Alcantara R.,** Beck O., Grabowski A. (2018). Mass added to a running-specific prosthesis increases metabolic power during running. *American Society of Biomechanics, Rocky Mountain Meeting.* (poster)

**Alcantara R.**, Trudeau M., Brüggemann G., Hamill J., Rohr E. (2016) Running Shoe Forefoot Bending Stiffness Affects Calf Muscle EMG. American Society of Biomechanics, Northwest Meeting. (poster)

**Alcantara R.** & Wall-Scheffler C. (2016). Running With A Stroller: Kinematic and Energetic Changes Across Different Stroller Pushing Techniques. *American College of Sports Medicine Annual Meeting.* (poster)

**Alcantara R.** & Wall-Scheffler C. (2015). Push it, Push it Real Good: The energetic cost of running with a stroller. *Murdock College Science Research Program*. (poster)

**Alcantara R.** & Wall-Scheffler C. (2015). Push it, Push it Real Good: The energetic cost of running with a stroller. Seattle Pacific University Summer Research Symposium. (podium)

#### **INVITED PRESENTATIONS**

2019	Department of Integrative Physiology Colloquium – University of Colorado Boulder
2018	Guest Lecturer, Introductory Biomechanics – Colorado School of Mines
2018	Guest Speaker, Capstone Seminar – George Fox University
2016	Guest Speaker, Disciplinary Research and Writing Seminar – Seattle Pacific University

#### **ACADEMIC SERVICE**

2018	Co-Chair, PhD Competition Session – American Society of Biomechanics (ASB) National Meeting
2018	Co-Chair, Sports Session – ASB, Rocky Mountain Regional Meeting
2017 - 18	Member, ASB Student Advisory Committee for Biomechanics Advocacy
2016	Panel Speaker, Biology Cornerstone Seminar – Seattle Pacific University

### **COMMUNITY OUTREACH**

2019	Organizer, National Biomechanics Day at Silver Creek HS, Longmont, CO
2018	Organizer, University of Colorado Boulder National Biomechanics Day

#### SPECIALIZED SKILLS

**Programming Tools** MATLAB, R, Python, Github Version Control, Tableau, LaTeX

**Laboratory Equipment** Motion Analysis Cortex, Vicon Nexus 2.x, Visual 3D, Novel Pedar, Instron

Material Testing, Delsys & Noraxon EMG, IMeasureU, Treadmetrix, Bertec,

Parvo Medics, Oxycon Mobile

## **MEDIA**

**Selected Press for Energetic Cost of Stroller Running:** 

New York Times Inside Science

Personal Interview - SPU etc. Magazine:

https://voices.spu.edu/articles/dream-career-reality-college-etc