

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

- 2019** IPHY Fellowship Travel Award (MSc), University of Colorado Boulder (\$600)
- 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** Chair, PhD Competition Session – American Society of Biomechanics (ASB) National Meeting
- 2018** Chair, Sports Session – ASB, Rocky Mountain Regional Meeting
- 2017 - 18** ASB Student Advisory Committee for Biomechanics Advocacy
- 2016** Panel Speaker, Biology Cornerstone Seminar – Seattle Pacific University

MENTORSHIP

- 2019- Pres** Mentor, CU Boulder Graduate Student Peer Mentoring Program
- 2019** Nick Cox, Undergraduate Summer Research Assistant
- 2018-19** Lauren Sandal, Undergraduate Research Assistant
- 2018-19** Zane Colvin, Undergraduate Research Assistant

COMMUNITY OUTREACH

- 2019** National Biomechanics Day at Silver Creek HS, Longmont, CO

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](#)

Society Magazine (Paris, France), by Emmanuelle Andreani

Personal Interview - SPU etc. Magazine:

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