

Ryan Alcantara

Email: ryan.alcantara@colorado.edu

EDUCATION

- 2019-Pres Ph.D. in Integrative Physiology – University of Colorado Boulder**
Advisor: Dr. Alena Grabowski – Applied Biomechanics Lab
Anticipated Graduation: Spring 2021
- 2017-2019 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: PAC-12 Student-Athlete Health & Well-Being Grant Program
- 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.
- 2014-15 Teaching Assistant – Seattle Pacific University**
Introductory Physics I & II

HONORS & AWARDS

- 2019** IPHY Fellowship Travel Award (MSc), University of Colorado Boulder
- 2018** Diversity Travel Award, American Society of Biomechanics
- 2018** Best MSc Poster Presentation, American Society of Biomechanics – Rocky Mountain Meeting
- 2018** Graduate Student Travel Grant, University of Colorado Boulder
- 2017** Graduate Dean's Fellowship, University of Colorado Boulder
- 2012** Oregon Latino Scholarship, Hispanic Metropolitan Chamber of Commerce
- 2011-2015** President's Scholar Award, Seattle Pacific University

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. *International Society of Biomechanics*. (podium)

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)

***Awarded Best Poster Presentation by a master's student**

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** Using inertial measurement units to predict running kinetics and kinematics. LEOMO Inc., Boulder, CO
- 2019** Wearable devices estimate biomechanical risk factors for stress fractures. Integrative Physiology Department Colloquium, University of Colorado Boulder
- 2018** Guest Lecturer. Introductory Biomechanics, Colorado School of Mines
- 2018** Panel Speaker. Capstone Seminar, George Fox University
- 2016** Guest Lecturer. Disciplinary Research and Writing Seminar, Seattle Pacific University
- 2016** Panel Speaker. Biology Cornerstone Seminar, Seattle Pacific University

ACADEMIC SERVICE

- 2019** Ad Hoc Reviewer, Journal of Open Source Software
- 2019** Co-Chair, Running Performance Session – *Footwear Biomechanics Symposium*
- 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** ASB Student Advisory Committee for Biomechanics Advocacy
- 2017** Ad Hoc Reviewer, Journal of Applied Physiology

MENTORSHIP

- 2019-Pres** Mentor, High School STEM Internship Program, Boulder, CO
2019-Pres Mentor, Graduate Student Peer Mentoring Program, University of Colorado Boulder
2018-Pres Supervisor, Applied Biomechanics Lab Undergraduate Researchers, University of Colorado Boulder

COMMUNITY OUTREACH

- 2018-2019** University of Colorado Boulder National Biomechanics Day

SPECIALIZED SKILLS

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| Data Analysis | MATLAB, R, Python, Git/Github, 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>