

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, “L2k” Legacy 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>