

## **CURRICULUM VITAE**

### **JAY H. PORTERFIELD** **Performance Scientist & Biomedical Data Analyst** **Los Angeles, CA**

#### **Biography**

Jay Porterfield served as the Performance Scientist for the Los Angeles Clippers of the National Basketball Association (NBA) from 2016 to 2023. Working alongside the team's Performance, Health and Wellness Department for 7 seasons, he assisted players and coaches with interpreting performance data from wearable devices as well as medical-grade technologies to uncover actionable insights related to training, in-game management, recovery strategies and injury trends. Porterfield graduated from the Viterbi School of Engineering at the University of Southern California in 2009 with a Bachelor of Science in Biomedical Engineering. During this time, he also competed as a 100m & 200m sprinter on the USC Track & Field team (2009-2012) while also working in Dr. Nina Bradley's Developmental Motor Control lab, where he researched the effect of light on the development of balance when learning to walk. His research was later published in the Journal for Developmental Psychobiology (2015). He went on to work at USC's Keck School of Medicine for the USC Center for Body Computing, a digital health research and innovation center run by Dr. Leslie Saxon. His role at the Center for Body Computing allowed him to combine his background in athletics and engineering to conceptualize and execute creative studies that integrated noninvasive biomedical sensors into athletic training to uncover new tools and methods for optimizing player performance. During his time with the USC CBC, Porterfield also continued his education, earning a Master of Science degree in Biomedical Engineering in 2015 with a focus in medical device and diagnostic engineering. Porterfield is a native of Atlanta, GA.

#### **Education**

M.S. Biomedical Engineering, 2015  
USC Viterbi School of Engineering, Los Angeles, CA

B.S. Biomedical Engineering, 2013  
University of Southern California, Los Angeles, CA

#### **Areas of Specialization**

*Performance Technology Implementation -*

- Athlete Engagement
- Data Collection
- Data Contextualization

*Athlete Body Composition -*

- DXA licensed-operator & report interpretation

## **Professional Experience**

### **LA Clippers, NBA, Performance Scientist/Biomedical Analyst | Sept. 2016 - Aug. 2023**

- Oversee day-to-day workload monitoring and evaluation of games, practices and workouts
- Deliver player workload information to assistant coaches, player development staff and strength and conditioning coaches
- Educate players on their weekly workload information in effort to make them active participants in managing their time on-court while also sustaining the required skill-specific training and conditioning
- Assist player development staff in on-court workouts for active and injured/rehabbing players
- Collect, log & interpret body composition (DXA) data for roster players
- Collect and log anthropometric, speed and agility, and force plate data for draft prospect workouts and free agent mini camps during off-season
- Collect & present relevant health and performance related information for free agent medical audits as well as contract extensions
- Manage \$50k budget & expense reports for Performance, Health & Wellness department purchases

### **USC Center for Body Computing, Project Coordinator | Oct. 2013 – Sept. 2016**

- Oversaw and assisted in clinical study design and product implementation with multiple industry partners
- Employed digital health solutions in untapped populations; create disruptive use cases for sensor companies trying to enter athletic monitoring and/or consumer wearables market
- Conducted qualitative and quantitative analyses; created visual representations for sensor data and project reports
- Managed projects and discussions with a list of notable partners including Skullcandy, AliveCor, Zephyr, National Basketball Association (NBA), Philadelphia Eagles (NFL) and Proactive Sports Performance Lab
- Researched current events concerning digital health, wireless sensors and mobile health innovation
- Troubleshoot and proposed new project ideas with project manager
- Proposed novel experiences and product marketing strategies with industry partners during 2-day brainstorming meetings
- Assisted in planning and production of annual USC Body Computing Conference USC

### **Division of Biokinesiology & Physical Therapy, Motor Control Development Lab, Junior Research Engineer | Jan. 2011 – Dec. 2013**

- Published manuscript in Developmental Psychobiology highlighting undergraduate research; “Drift during overground locomotion in newly hatched chicks varies with light exposure during embryogenesis”
- Oversaw data collection, video digitization, statistical analysis and result interpretation of multiple projects

### **Additional Professional Experience**

Licensed DXA Operator, BodySpec | 2023 - Present

Strategic Consultant, Breakaway Data | 2022 - Present

Advisor, The 22 Fund | 2020 - Present

Performance Consultant, Lia Ditton (Professional Ocean Rower/Sailer) | 2018-2020

### **Academic Teaching Experience**

2023 Guest Lecturer, BKN 610: Tech in Sport - Field Assessment of Athletic Performance, University of Southern California. ***In Game Event Tracking & Future Applications in Data Contextualization***

2022 Guest Lecturer, BKN 610: Tech in Sport - Field Assessment of Athletic Performance, University of Southern California. ***In Game Event Tracking & Future Applications in Data Contextualization***

2021 Guest Lecturer, BKN 610: Tech in Sport - Field Assessment of Athletic Performance, University of Southern California. ***Integrating Progressive Philosophies into a Professional Sports Organization***

2020 Guest Lecturer, BKN 610: Tech in Sport - Field Assessment of Athletic Performance, University of Southern California. ***Use of Video Technology for Indoor Player Tracking in the NBA***

2019 Guest Lecturer, BKN 553: Experimental Methods for the Analysis of Human Movement. ***Integrating Progressive Philosophies into a Professional Sports Organization***

2016 Guest Lecturer, BKN 553: Experimental Methods for the Analysis of Human Movement. ***Applications of Wireless Biomedical Sensors: How Do We Validate Data?***

### **Additional Speaking Experience**

2022 Invited Panelist, 10th Annual UCLA MedTech Partnering Conference, ***Sportstech: How Medtech and Data are Revolutionizing the Sports Industry***

2022 Invited Speaker, Studio 22 Podcast w/ Will Meldman, ***The Future of Sports Analytics***

2022 Invited Panelist, Dimensions Sciences College Ambassador Program, ***Pathways to Careers in STEM***

2021 Invited Speaker, On Deck Health Seminar, ***Driving Behavior Change in Athletics with Data***

2020 Invited Panelist, 14th Annual USC Body Computing Conference, ***Technology, Social Justice & COVID-19 in the NBA: Lemons to Lemonade***

2018 Invited Speaker, USC Performance Science Institute Podcast w/ Dr. Glenn Fox, ***Gratitude in Professional Sport***

## Publication(s)

1. **Porterfield, J.H.**, Sindhurakar, A., Finley, J.M., Bradley, N.S. (2015) Drift during overground locomotion in newly hatched chicks varies with light exposure during embryogenesis. *Developmental Psychobiology* 57:459-469, doi:10.1002/dev.21306.

## Abstracts & Poster Presentations

1. Saxon L, **Porterfield J**, Kale D, Berkeley J. Assessing heart rate behavior of wounded post-9/11 U.S. veterans using body worn sensors. Heart Rhythm Society 37th Annual Scientific Sessions. San Francisco, CA, USA, 2016. Poster Presentation.
2. Lin R, Abouzeid C, Keibel A, Chukumerije M, Kwong J, Berkeley J, **Porterfield J**, Kale D, Saxon L. Use of a patch worn wireless multi-sensor biometric monitor for hospitalized patients not referred to a telemetry unit. Heart Rhythm Society 37th Annual Scientific Sessions. San Francisco, CA, USA, 2016.
3. Saxon L, Berkeley J, **Porterfield J**, Bose R, Doshi R, Chang P, Shinbane J, Tun H. Public Access to smartphone enabled ECG acquisition. Heart Rhythm Society 2015 Scientific Sessions. Boston, MA, USA, 2015. Poster Presentation.
4. **Porterfield, J.H.**, Sindhurakar, A., Bradley, N.S. Impact of varying light exposure during incubation on locomotor navigation. Ostrow School of Dentistry Research Day, University of Southern California, Los Angeles, CA, USA, 2013. Poster Presentation.  
***Awarded 2nd place in USC Research Day poster presentation competition***
5. **Porterfield, J.H.**, Sindhurakar, A., Bradley, N.S. Effect of light on veering during overground walking in hatchlings. 14th Annual Undergraduate Symposium for Scholarly and Creative Work, University of Southern California, Los Angeles, CA, 2012. Poster Presentation.
6. **Porterfield, J.H.**, Sindhurakar, A., Bradley, N.S. Effect of light during embryogenesis on locomotor navigation in hatchlings. Ostrow School of Dentistry Research Day, University of Southern California, Los Angeles, CA, USA, 2012. Poster Presentation.