

Stanford

Carmichael Ong

Research Engineer

Bioengineering

Bio

ACADEMIC APPOINTMENTS

- Research Engineer, Bioengineering

Publications

PUBLICATIONS

- **OpenSense: An open-source toolbox for inertial-measurement-unit-based measurement of lower extremity kinematics over long durations.** *Journal of neuroengineering and rehabilitation*
Al Borno, M., O'Day, J., Ibarra, V., Dunne, J., Seth, A., Habib, A., Ong, C., Hicks, J., Uhlrich, S., Delp, S.
2022; 19 (1): 22
- **Deep reinforcement learning for modeling human locomotion control in neuromechanical simulation.** *Journal of neuroengineering and rehabilitation*
Song, S., Kidzinski, L., Peng, X. B., Ong, C., Hicks, J., Levine, S., Atkeson, C. G., Delp, S. L.
2021; 18 (1): 126
- **Predicting gait adaptations due to ankle plantarflexor muscle weakness and contracture using physics-based musculoskeletal simulations.** *PLoS computational biology*
Ong, C. F., Geijtenbeek, T. n., Hicks, J. L., Delp, S. L.
2019; 15 (10): e1006993
- **OpenSim: Simulating musculoskeletal dynamics and neuromuscular control to study human and animal movement.** *PLoS computational biology*
Seth, A., Hicks, J. L., Uchida, T. K., Habib, A., Dembia, C. L., Dunne, J. J., Ong, C. F., DeMers, M. S., Rajagopal, A., Millard, M., Hamner, S. R., Arnold, E. M., Yong, et al
2018; 14 (7): e1006223
- **OpenSim: Simulating musculoskeletal dynamics and neuromuscular control to study human and animal movement** *PLOS COMPUTATIONAL BIOLOGY*
Seth, A., Hicks, J. L., Uchida, T. K., Habib, A., Dembia, C. L., Dunne, J. J., Ong, C. F., DeMers, M. S., Rajagopal, A., Millard, M., Hamner, S. R., Arnold, E. M., Yong, et al
2018; 14 (7)
- **Introduction to NIPS 2017 Competition Track** *NIPS'17 COMPETITION: BUILDING INTELLIGENT SYSTEMS*
Escalera, S., Weimer, M., Burtsev, M., Malykh, V., Logacheva, V., Lowe, R., Serban, I., Bengio, Y., Rudnicky, A., Black, A. W., Prabhumoye, S., Kidzinski, L., Mohanty, et al
2018: 1–23
- **Learning to Run Challenge: Synthesizing Physiologically Accurate Motion Using Deep Reinforcement Learning** *NIPS'17 COMPETITION: BUILDING INTELLIGENT SYSTEMS*
Kidzinski, L., Mohanty, S. P., Ong, C. F., Hicks, J. L., Carroll, S. F., Levine, S., Salathe, M., Delp, S. L., Escalera, S., Weimer, M.
2018: 101–20
- **Learning to Run Challenge Solutions: Adapting Reinforcement Learning Methods for Neuromusculoskeletal Environments** *NIPS'17 COMPETITION: BUILDING INTELLIGENT SYSTEMS*
Kidzinski, L., Mohanty, S., Ong, C. F., Huang, Z., Zhou, S., Pechenko, A., Stelmaszczyk, A., Jarosik, P., Pavlov, M., Kolesnikov, S., Plis, S., Chen, Z., Zhang, et al
2018: 121–53

- **Simulation-Based Design for Wearable Robotic Systems: An Optimization Framework for Enhancing a Standing Long Jump** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*
Ong, C. F., Hicks, J. L., Delp, S. L.
2016; 63 (5): 894-903
- **A Simple Method for Amplifying RNA Targets (SMART)** *JOURNAL OF MOLECULAR DIAGNOSTICS*
McCalla, S. E., Ong, C., Sarma, A., Opal, S. M., Arntstein, A. W., Tripathi, A.
2012; 14 (4): 328-335
- **Ligation with Nucleic Acid Sequence-Based Amplification** *JOURNAL OF MOLECULAR DIAGNOSTICS*
Ong, C., Tai, W., Sarma, A., Opal, S. M., Arntstein, A. W., Tripathi, A.
2012; 14 (3): 206-213