

WORK AND RESEARCH EXPERIENCE

- **College of Design and Engineering, National University of Singapore** Singapore, SG
Graduate Research Assistant ([BUDSLab](#), [SinBerBEST2](#)) 08/2018 – Present
 - **Field experiments:** Conducted field studies with wearable technology for health and thermal comfort monitoring.
 - **Data Science:** Performed unsupervised and semisupervised learning research on a global portfolio of building electricity consumption and on field experiment datasets for thermal comfort.
 - **Hardware & Software:** Organized and maintained laboratory computational resources used for scientific research.
- **Civil and Environmental Engineering Dept., Carnegie Mellon University** Pittsburgh, US
Graduate Research Assistant, Intelligent Infrastructure Research Lab (INFERLab) 04/2017 – 06/2018
 - **Industrial research project:** Collaborated in Department of Energy funded project regarding Sensing and Control for Commercial Building Energy Efficiency and Occupant Comfort.
 - **Data Science:** Designed and implemented a data preparation and evaluation framework with Bosch U.S. research scientists for RGBD building occupancy data.
 - **Hardware:** Designed, produced, and programmed an AC waveform power meter board based on an Atmega328p for the Raspberry Pi.

TEACHING & MENTORING EXPERIENCE

- **College of Design and Engineering - National University of Singapore** Singapore, SG
Teaching assistant 08/2020 – Present
 - **Mentoring:** Mentored **8** undergraduate (B.Sc. Project and Facilities Management) and **1** graduate student (M.Sc. Computer Science) in their thesis.
 - **Online teaching:** Main collaborator and content creator for MOOC [Data Science for Construction Architecture and Engineering \(2021 edX Prize Finalist for Innovation in Online Teaching\)](#).
 - **Courses PF1103 - Digital Construction, PF3211 - AI Applications for the Built Environment, BPS5229 - Data Science for the Built Environment** : Held office hours and taught hands-on sessions.
- **Heinz College - Carnegie Mellon University** Pittsburgh, PA
Teaching Assistant 2016
 - **Course 95-703 - Database Management:** Held office hours and laboratory sessions to help students with assignments and class' concepts, improved assignments, and designed new homeworks

EDUCATION

- **National University of Singapore - College of Design and Engineering** Singapore, SG
PhD Candidate 2018 - Present
- **Carnegie Mellon University** Pittsburgh, PA
Master in Information Systems Management 2015 - 2016
- **Pontifical Catholic University of Peru** Peru, PE
B.Sc. in Electronic Engineering 2009 - 2014

SELECTED PUBLICATIONS

- **Journal and conferences publications**
 - **Quintana, M.**, Schiavon, S., Tham, K. W., & Miller, C. (2020). Balancing thermal comfort datasets: We GAN, but should we? In Proceedings of the 7th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation (pp. 120–129). Virtual Event, Japan.
<https://doi.org/10.1145/3408308.3427612>
 - Jayathissa, P., **Quintana, M.**, Abdelrahman, M., & Miller, C. (2020). Humans-as-a-sensor for buildings: Intensive longitudinal indoor comfort models. Buildings, 10(174), 1–23.
<https://doi.org/10.3390/buildings10100174>
 - Francis, J.*, **Quintana, M.***, Frankenberg, N. Von, Munir, S., & Bergés, M. (2019). OccuTherm : Occupant Thermal Comfort Inference using Body Shape Information. In BuildSys '19 Proceedings of the 6th ACM International Conference on Systems for Energy-Efficient Built Environments]. New York, NY, USA.
<https://doi.org/10.1145/3360322.3360858>

- Jayathissa, P., **Quintana, M.**, Sood, T., Narzarian, N., & Miller, C. (2019). Is your clock-face cozie ? A smartwatch methodology for the in-situ collection of occupant comfort data. In CISBAT2019 Climate Resilient Buildings - Energy Efficiency & Renewables in the Digital Era. Lausanne, Switzerland.
- Please visit my [Google Scholar](#) or [Scopus](#) profile for the complete list of publications.

UNIVERSITY & PUBLIC ENGAGEMENT

- **Office of the Senior Deputy President and Provost, NUS** Singapore, SG
Member of the National University of Singapore (NUS) Board of Discipline 07/2021 - Present
- **Office of Student Affairs, NUS** Singapore, SG
Resident Assistant 06/2020 - Present
- **ASHRAE Student Branch, NUS** Singapore, SG
Secretary 02/2020 - 05/2021
- **Building Research Students Network, NUS** Singapore, SG
President, former treasurer 08/2019 - Present
- **Internet of Things Club, Carnegie Mellon University** Pittsburgh, PA
Co-founder and technical director 06/2016 - 12/2016
- **Latino Graduate Student Association, Carnegie Mellon University** Pittsburgh, PA
President, former treasurer 12/2015 - 12/2016

SERVICES

- **Journals**
 - Ambient Intelligence and Humanized Computing - Reviewer - 2021
 - Building and Environment - Reviewer - 2021
 - Applied Energy - Assistant Reviewer - 2020
 - Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) - Reviewer - 2020
- **Conferences**
 - Workshop on Tackling Climate Change with Machine Learning at the Conference on Neural Information Processing Systems (NeurIPS) - Program Committee - 2021
 - 8th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation (BuildSys 2021) - Organisation Committee, Sponsorship Co-Chair, and Assistant reviewer - 2021
 - Workshop on Tackling Climate Change with Machine Learning at the International Conference on Machine Learning (ICML) - Program Committee - 2021
 - 3rd International Workshop on Applied Machine Learning for Intelligent Energy Systems (AMLIES) - Technical Program Committee - 2021
 - eSim 2020 Building simulation meets building data, IBPSA Canada - Reviewer - 2021
 - 18th ACM Conference on Embedded Networked Sensor Systems (SenSys 2020) and 7th ACM International Conference on Systems for Energy-Efficient Built Environments (BuildSys 2020) - Student Volunteer - 2020
 - 7th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation (BuildSys 2020) - Assistant reviewer - 2020
 - 11th ACM International Conference on Future Energy Systems (e-Energy 2020) - Assistant reviewer - 2020
 - 2nd International Workshop on Applied Machine Learning for Intelligent Energy Systems (AMLIES) - Technical Program Committee - 2020

SKILLS

- **Languages:** Spanish, English, French, Chinese
- **Programming languages:** Python, \LaTeX , SQL, JAVA, C/C++