Carlos E. **Tejada**

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Employment

University of Copenhagen
Copenhagen, Denmark

Ph.D. Fellow
2018 – June 2021

- Investigated novel techniques for the construction of interactive objects using acoustic and pneumatic methods, and machine learning and mathematical models.
- Used acoustic, and barometric sensor data to develop custom machine learning pipelines to enable non-expert designers to 3D-print interactive objects without assembling electronic circuits.
- Collaborated with researchers from across the globe.
- Published work in top-tier conferences on Human-Computer Interaction.

Rochester Institute of Technology
Rochester, New York, USA

Graduate Research Assistant
2014 – 2016

- Assisted in the development of novel, wearable systems for hands-free interaction.
- Developed an acoustic signal processing and machine learning pipeline using Python to correctly identify individual teeth clicks using a head-worn microphone.
- Implemented an application using Python and Javascript to use individual teeth clicks as hands-free interface controls for computing devices.

Tous Software Corp.
Miramar, Florida, USA

Senior Software Developer
2012 – 2014

- Led a team developers in creating a new reporting portal for customers using Java, PHP, and Go.
- Interfaced between clients and developer team to effectively implement the requirements.

Synergies Corp.
Santiago, Dominican Republic

Junior Software Developer
2012 – 2013

- Aided in the development of a series of in-house applications for employee management using C#.

Education

University of Copenhagen
Copenhagen, Denmark

Ph.D. in Computer Science / Human-Computer Interaction, focused on digital fabrication
2018 – June 2021

- Thesis title: *Print-and-Play Fabrication*. Enabling the construction of interactive objects using pneumatic and acoustic techniques.
- Selected publications:
- Blowhole: Blowing-Activated Tags for Interactive 3D-Printed Models.
- EchoTube: Modular and Robust Press Sensing along Flexible Tubes using Waveguided Ultrasound.
- AirTouch: 3D-printed Touch-Sensitive Objects Using Pneumatic Sensing.

Rochester Institute of Technology
Rochester, New York, USA

Ph.D. in Computer Science
2017 – 2018

- Transferred to the University of Copenhagen.

Rochester Institute of Technology
Rochester, New York, USA

M.Sc. in Information Science
2014 – 2016

- Special focus on machine learning and database management.
- Thesis title: *Knock-on-Wood*
- Explored the use of machine learning and acoustic signal processing to identify physical materials as part of a digital fabrication pipeline.

Pontificia Universidad Católica Madre y Maestra
Santiago, Dominican Republic

B.Sc. in Systems Engineering
2008 – 2013

- Special focus on information retrieval and database management.
- Thesis title: *Solve-for-X*
- Developed a mobile and web application using computer vision and linear algebra that allows users to solve mathematical equations by taking a picture with their phones or computers.