

# Luis Arturo Cavazos Quero

luis.floware.com

linkedin.com/in/luis-cavazos/

filoteo\_2000@hotmail.com

+82-010-7470-8898

## EDUCATION

---

### Sungkyunkwan University

Ph.D., Electrical and Computer Engineering (advisor: Jundong Cho)

Honors: *Sungkyun Honorable Scholarship, CONACYT Fellowship.*

Seoul, South Korea

February 2022

### Sungkyunkwan University

M.S., Electrical and Computer Engineering (advisor: Jinsoo Kim)

Honors: *Sungkyun Honorable Scholarship.*

Seoul, South Korea

August 2015

### Tecnológico de Monterrey

B.S., Electronic and Computer Engineering

Monterrey NL, Mexico

August 2010

## PROFESSIONAL EXPERIENCE

---

### Ewha Womans University

Postdoctoral Fellow - Human-Computer Interaction Laboratory. Host: Uran Oh.

Seoul, South Korea

2022 - Current

### Aposha Inc.

Co-founder, Software Engineer - R&D Team.

Seoul, South Korea

2017 - 2020

### Dot Inc.

UX Research Intern.

Seoul, South Korea

2016

### Nemak

Systems Analyst - IT Department.

Monterrey NL, Mexico

2010 - 2012

### Universidad Tecmilenio

Java Programming Instructor.

Monterrey NL, Mexico

2010

### AMD Advanced Micro Devices

Product Development Engineering Intern - PDE Yield Team.

Austin TX, USA

2008

## THESIS

---

- **Ph.D. Thesis: Cavazos Quero, L.**, 2022. Design, Implementation, and Evaluation of an Interactive Multimodal Guide to Improve Visual Art Accessibility and Appreciation for Blind and Visually Impaired People.
- **M.S. Thesis: Cavazos Quero, L.**, 2015. Improving Performance and Energy Efficiency in External Sorting Through In-Storage Processing.

## JOURNAL ARTICLES

---

- **Cavazos Quero, L.**, Lee, C.H. and Cho, J.D., 2021. Multi-sensory color code based on sound and scent for visual art appreciation. *Electronics*, 10(14), p.1696.
- Cho, J.D., **Quero, L.C.**, Bartolomé, J.I., Lee, D.W., Oh, U. and Lee, I., 2021. Tactile colour pictogram to improve artwork appreciation of people with visual impairments. *Color Research & Application*, 46(1), pp.103-116.
- **Cavazos Quero, L.**, Iranzo Bartolomé, J. and Cho, J., 2021. Accessible visual artworks for blind and visually impaired people: comparing a multimodal approach with tactile graphics. *Electronics*, 10(3), p.297.
- Iranzo Bartolomé, J., Cho, J.D., **Cavazos Quero, L.**, Jo, S. and Cho, G., 2020. Thermal interaction for improving tactile artwork depth and color-depth appreciation for visually impaired people. *Electronics*, 9(11), p.1939.
- Lee, Y., Lee, D., **Quero, L.C.**, Bartolome, J.I., Cho, J. and Lee, S., 2020. A Conversational Interactive Tactile Map for the Visually Impaired. *Science of Emotion and Sensibility*, 23(1), pp.29-40. *In Korean.*
- Lee, Y.S., **Quero, L.C.**, Kim, S.H., Kim, J.S. and Maeng, S., 2016. ActiveSort: Efficient external sorting using active SSDs in the MapReduce framework. *Future Generation Computer Systems*, 65, pp.76-89.

## CONFERENCE ARTICLES

---

- Bartolome, J.D.I., **Quero, L.C.**, Cho, J. and Jo, S., 2020, January. Exploring Thermal Interaction for Visual Art Color Appreciation for the Visually Impaired People. In *2020 International Conference on Electronics, Information, and Communication (ICEIC)* (pp. 1-5). IEEE.
- **Quero, L.C.**, Lee, Y.S. and Kim, J.S., 2015, May. Self-sorting SSD: Producing sorted data inside active SSDs. In *2015 31st Symposium on Mass Storage Systems and Technologies (MSST)* (pp. 1-7). IEEE.
- Lee, Y.S., **Quero, L.C.**, Lee, Y., Kim, J.S. and Maeng, S., 2014. Accelerating External Sorting via On-the-fly Data Merge in Active SSDs. In *6th USENIX Workshop on Hot Topics in Storage and File Systems (HotStorage 14)*.

## POSTERS & DEMONSTRATIONS

---

- **Cavazos Quero, L.**, Iranzo Bartolomé, J., Lee, D., Lee, Y., Lee, S. and Cho, J., 2019, October. Jido: a conversational tactile map for blind people. In Proceedings of the 21st International ACM SIGACCESS Conference on Computers and Accessibility (pp. 682-684).
- Iranzo Bartolome, J., **Cavazos Quero, L.**, Kim, S., Um, M.Y. and Cho, J., 2019, March. Exploring art with a voice controlled multimodal guide for blind people. In Proceedings of the Thirteenth International Conference on Tangible, Embedded, and Embodied Interaction (pp. 383-390).
- **Cavazos Quero, L.**, Iranzo Bartolomé, J., Lee, S., Han, E., Kim, S. and Cho, J., 2018, October. An interactive multimodal guide to improve art accessibility for blind people. In Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 346-348).
- Lee, G., **Quero, L.C.**, Yang, J., Jung, H., Son, J. and Cho, J., 2017, September. Slate master: a tangible braille slate tutor for mobile devices. In Proceedings of the 19th International Conference on Human-Computer Interaction with Mobile Devices and Services (pp. 1-6).
- **Cavazos Quero, L.**, Lee, G., Yang, J. and Cho, J., 2017, February. H-slate: A hybrid braille slate soft keyboard for touchscreen devices. In Companion of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing (pp. 159-162).

## PATENTS

---

- Cho, J., **Cavazos Quero, L.**, Iranzo Bartolomé, J., and Jo, S., 14 April 2022. Color-to-temperature conversion method for color recognition, apparatus, and system therefor. Korean Patent 10-2386454-0000

## TEACHING EXPERIENCE

---

- **Training Workshop Instructor:** “Arduino IoT” Physical Computing Workshop G.Camp, South Korea  
Developing an IoT device using the Arduino platform. September 2019
- **Training Workshop Instructor:** “Arduino Day” Physical Computing Workshop G.Camp, South Korea  
Hands-on introduction to the Arduino open source hardware and software platform. March 2019
- **Teaching Assistant:** ECE5947 HCI Design Course Sungkyunkwan University, South Korea  
Introduction to HCI principles and techniques for hardware and software design. February 2017
- **Teaching Assistant:** SSE2030 Introduction to Computer Systems Sungkyunkwan University, South Korea  
Introduction to computer system application execution, storage, and communication. September 2014
- **High School Course Instructor:** Computer Science III Course. Universidad Tecmilenio, Mexico  
Introduction to computer programming using Java. May 2010

## SERVICE - REVIEWER

---

ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)	2023
ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)	2023
IEEE Access	2023

## SKILLS SUMMARY

---

**Languages:** Spanish (Native), English (Professional proficiency), Korean (Elementary proficiency)  
**Embedded Development:** Assembly, C, C++, Python, Arduino, Raspberry, NVIDIA Jetson, PCB Design  
**Mobile Development:** Android (Java), iOS (Swift)  
**Web Development:** HTML, CSS, Javascript, NodeJS, React, Bootstrap  
**Cloud Development:** AWS, Google Cloud  
**Prototyping:** 3D Printing (FDM, LCD), Laser Cutting, Hardware Tools, Fusion 360  
**Multimedia:** Photoshop, Illustrator, Premier