

# Ismael Villegas Molina

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Department of Computer Science and  
Engineering  
9500 Gilman Drive  
La Jolla, CA 92023

## Education

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### **Doctorate of Philosophy in Computer Science**

**Expected June 2025**

University of California, San Diego

Advisors: Leo Porter, Adalbert Gerald Soosai Raj, Bill Griswold

Research Lab: Computer Science Education Lab

### **Master of Science in Computer Science**

**May 2021**

University of Southern California

Viterbi School of Engineering

### **Bachelor of Science in Computer Science**

**May 2019**

Columbia University

The Fu Foundation of Engineering and Applied Science

Emphasis in Intelligent Systems

## Awards

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### **Gates Millennium Scholar**

2015 – 2025

### **GEM Fellow**

2019 – 2025

### **Sloan Fellow**

2021 – 2025

### **Hispanic Scholarship Fund Scholar**

2015 – 2019

## Teaching

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### University of California, San Diego

#### **CSE 8A: Introduction to Computer Science**

Teaching Assistant

Winter 2023

Spring 2023

Summer 2023

### Upward Bound – Imperial Valley

#### **Exploring Computer Science**

Instructor

Summer 2022

## Work Experience

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The MITRE Corporation	Graduate Research Scientist	Summer 2021
Amazon	Applied Science Research Intern	Summer 2020 Summer 2019
Goldman Sachs & Co.	Summer Analyst	Summer 2017

## Publications

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For an up-to-date list, check my [Google Scholar profile](#).

- **Ismael Villegas Molina**, Audria Montalvo, and Adalbert Gerald Soosai Raj. *U.S. Latines in Computing: A Review of the Literature*. Forthcoming in the Proceedings of the 55<sup>th</sup> ACM Technical Symposium on Computer Science education V. 1 (SIGCSE), March 2024.
- Mrinal Sharma, Hayden McTavish, Zimo Peng, Anshul Shah, Vardhan Agarwal, Caroline Sih, Emma Hogan, **Ismael Villegas Molina**, Adalbert Gerald Soosai Raj, and Kristen Vaccaro. *Engagement and Anonymity In Online Computer Science Course Forums*. Proceedings of the 19th ACM Conference on International Computing Education Research (ICER), August 2023.
- **Ismael Villegas Molina**, Adrian Salguero, Shera Zhong, and Adalbert Gerald Soosai Raj. *The Effects of Spanish-English Bilingual Instruction in a CSO Course for High School Students*. Proceedings of the 2023 Conference on Innovation and Technology in Computer Science Education V. 1 (ITiCSE), June 2023.
- Rachel S. Lim, Sophia Krause-Levy, **Ismael Villegas Molina**, and Leo Porter. *Student Expectations of Tutors in Computing Courses*. Proceedings of the 54th ACM Technical Symposium on Computer Science Education V. 1 (SIGCSE), March 2023.
- Sophia Krause-Levy, Rachel S. Lim, **Ismael Villegas Molina**, Yingjun Cao, and Leo Porter. *An Exploration of Student-Tutor Interactions in Computing*. Proceedings of the 27th ACM Conference on Innovation and Technology in Computer Science Education Vol. 1 (ITiCSE), July 2022.
- Erickson R. Nascimento, Ruzena Bajcsy, Michal Gregor, Isabella Huang, **Ismael Villegas**, and Gregorij Kurillo. *On the Development of an Acoustic-Driven Method to Improve Driver's Comfort Based on Deep Reinforcement Learning*. IEEE Transactions on Intelligent Transportation Systems, March 2020.
- Erickson R. Nascimento, Ruzena Bajcsy, Gregorij Kurillo, and **Ismael Villegas**. *Acoustic-driven Interior Vehicle Adaptation based on Deep Reinforcement Learning to Improve Driver's Comfort*. Paper and poster at International Conference on Intelligent Robots (IROS) workshop, 2018.

## Additional Information

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### Programming Languages

- Python

- Java
- Javascript/JQuery
- C/C++

## Natural Languages

- English – Native Fluency
- Spanish – Native Fluency
- French – Speak, Read, and Write with Basic Proficiency

## Citizenships

- Mexico
- United States of America

## Interests

- Multi-instrumentalist
  - Piano
  - Trombone
  - Trumpet
  - Baritone
  - Tuba
  - Percussion
  - Voice
- Filmmaker
  - Director
  - Writer
  - Actor
  - Composer
- Eagle Scout with Gold and Bronze Palms
- Taekwondo Black Belt, Kukkiwon certified
- PADI-Certified Scuba Diver