

Neftali D. Watkinson Medina

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EDUCATION

- University Of California, Irvine** Irvine, CA
PhD in Computer Science *Dec. 2020*
 - Thesis Title: Hyperdimensional Class Modeling for Anomaly Detection in Patient Data
- Ensenada Center for Scientific Research and Higher Education** Ensenada, Mexico
MS in Computer Science *Dec. 2013*
 - Thesis Title: Differential Evolution Based Feature Selection for Sentiment Analysis
- Center for Technical and Higher Education** Ensenada, Mexico
BS in Software Engineering *Dec. 2010*

EXPERIENCE

- Assistant Professor of Teaching** Jul. 2021 – Present
University of California, Riverside *Riverside, CA*
 - Researching applications of embedded artificial intelligence
 - Advising the ACM@UCR student organization
 - Teaching and developing curriculum for the Computer Science program
- Postdoctoral Researcher** Jan. 2021 – Jul. 2021
University of California, Irvine *Irvine, CA*
 - Researched application of Hyperdimensional Computing towards image recognition
 - Explored hardware acceleration of artificial intelligence applications
- Teaching Assistant** Aug. 2015 – Dec. 2020
University of California, Irvine *Irvine, CA*
 - Lead the Teaching Assistant team for ICS 51: Introduction to Computer Architecture and CS 243: High Performance Architecture
 - Taught discussion sessions for over two thousand students total
 - Designed assignments and midterms for in-class and remote learning
 - Taught remote and hybrid courses with Canvas
- Software Developer** Aug. 2012 – Jul. 2013
Softtek *Ensenada, Mexico*
 - Responsible for technical maintenance of a financial database for a major entertainment company
 - Lead English certification courses for co-workers
 - Generated sales statistics for monthly and annual budget meetings
- English Teacher** Jan. 2006 – Aug. 2011
Autonomous University of Baja California *Ensenada, Mexico*
 - Taught English as a second language at high school and undergraduate levels
 - Developed website for the university's children program
 - Participated in curricular design certifications

PROJECTS

- Talking Heads** | *University of California, Irvine* Nov. 2018 – Nov. 2019
 - Developed two virtual characters that used Artificial Intelligence to interact with people
 - Deployed systems at the Venice Art Biennale 2019 inside the Giardini della Biennale
 - Deployed one system at the UCI's Bright Future fundraising inauguration
- Numba Summarizer** | *University of California, Irvine* Jan. 2020 – May 2020
 - Developed a Python wrapper for Numba that generates vectorization reports on Python functions
 - Lead a team of undergraduate students that worked on the backend of Numba Summarizer

SELECTED PUBLICATIONS

EdgeAvatar: An Edge Computing System for Building Virtual Beings <i>Electronics 2021, Volume 10, Issue 3, 229</i>	Jan. 2021
NumbaSummarizer: A Python Library for Simplified Vectorization Reports <i>2020 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)</i>	May 2020
Evaluation of Feature Correlation for the Prediction of Sepsis <i>International Conference of Bioinformatics and Computational Biology (BIOCOMP'19)</i>	Dec. 2019
Teaching Parallel Computing and Dependence Analysis with Python <i>2019 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)</i>	May 2019

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), MIPS

Frameworks: React, Node.js, Flask, JUnit, WordPress, Material-UI, FastAPI

Developer Tools: Git, Google Cloud Platform, Microsoft Azure, Anaconda, Jupyter, Eclipse, Amazon AWS, Hamachi

Libraries: Pandas, NumPy, Matplotlib, TensorFlow, Keras, SciPy, Numba

AWARDS AND RECOGNITIONS

Latino Excellence and Achievement Award <i>University of California, Irvine</i>	2020
Miguel Velez Scholarship <i>University of California, Irvine</i>	2020
ICS Innovation Fellowship <i>University of California, Irvine</i>	2019
UC Mexus Doctoral Fellowship <i>UC Mexus & CONACYT</i>	2014
Fulbright-Garcia Robles Scholarship <i>COMEXUS & Fulbright</i>	2014

UNIVERSITY TEACHING EXPERIENCE

CS 199: Programming for Edge Computing <i>University of California, Irvine</i>	Spring 2020 <i>Irvine, CA</i>
ICS 33: Intermediate Programming <i>University of California, Irvine</i>	Summer 2019 <i>Irvine, CA</i>
ICS 33: Intermediate Programming <i>University of California, Irvine</i>	Summer 2018 <i>Irvine, CA</i>

OTHER PUBLICATIONS

Using hardware counters to predict vectorization <i>International Workshop on Languages and Compilers for Parallel Computing</i>	Oct. 2017
Comparison Between Online and Classroom Learning for a Boolean Algebra Class <i>51st ACM Technical Symposium on Computer Science Education</i>	Feb. 2020
Using data dependence analysis and loop transformations to teach vectorization <i>2017 International Conference on Computational Science and Computational Intelligence (CSCI)</i>	Dec. 2017
Differential Evolution-based Feature Selection for Sentiment Analysis <i>Difu100cia</i>	Jun. 2013

VOLUNTEER WORK

Children's and Youth Leader

Hope Tustin

Jan. 2017 & Jan. 2018

Tustin, CA

Experience Design Team Member

Comic-Con International

Jul. 2018 & Jul. 2019

San Diego, CA

English Teacher

Federal Education Workers Union

Jun. 2012 - Aug. 2012

Ensenada, Mexico

Construction Worker

Christian Mission for Mexican Evangelism

Sep. 2010 - Sep. 2011

Mexicali, Mexico

English-Spanish Interpreter

Kairos

Aug. 2010 - Sep. 2010

Ensenada, Mexico

PERSONAL SKILLS

Spoken Languages: English, Spanish

Traits: Leadership, Respect, Honesty, Persistence, Consistence, Loyalty

Hobbies: Golf, Videogames, Guitar, Cycling, Board Games, Cooking