

# Oswaldo Arturo Tapia-Duenas

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## Contact Information

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## Positions Held

2023{present	<b>Assistant Professor</b> , John Carroll University, USA Department of Mathematics, Computer Science, and Data Science.
2022{2023	<b>Visiting scholar</b> , Cleveland State University, USA Department of Mathematics & Statistics and Electrical Engineering and Computer Science Department.
2019{2022	<b>Associate Research Professor</b> , Autonomous University of Aguascalientes, Mexico, Department of Computer Science.

## Education

2019{2023	<b>Ph.D. in Applied Science and Technology</b> , Autonomous University of Aguascalientes, Mexico. Advisor: Hermilo Sanchez-Cruz. Cleveland State University, USA. Visiting scholar, 2022{2023. Advisor: Hiram H. Lopez.
2017{2018	<b>Master in Computer Science</b> , Autonomous University of Aguascalientes, Mexico. Thesis: <i>Formal system that allows binary object descriptors to be recognized</i> . Advisors: Hermilo Sanchez-Cruz and Hiram H. Lopez.
2011{2016	<b>Intelligent Computer Engineering</b> , Autonomous University of Aguascalientes, Mexico. Thesis: <i>Selection of subsets of characteristics using testers and a hybrid EDA on the basis of EXANII data in the mathematical logical reasoning test in Aguascalientes in 2013</i> .

## Publications

1. **Chain code strategy for lossless storage and transfer of segmented binary medical data**

Erdogan Aldemir, Oswaldo Arturo Tapia Duenas, Ali Emre Kavur, Gulay Tohumoglu, Hermilo Sanchez-Cruz and Mustafa Alper Selver(2023). Chain code strategy for lossless storage

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3. **Context-free grammars to detect straight segments and a novel polygonal approximation method**

Tapia-Dueñas, O. A., Sanchez-Cruz, H. (2021). Context-free grammars to detect straight segments and a novel polygonal approximation method. *Signal Processing: Image Communication*, Vol 91, Elsevier.

4. **Polygonal Approximation Using a Multiresolution Method and a Context-free Grammar**

Sanchez-Cruz H., Tapia-Dueñas O.A., Cuevas F. (2019) Polygonal Approximation Using a Multiresolution Method and a Context-free Grammar. In: Carrasco-Ochoa J., Martínez-Trinidad J., Olvera-Lopez J., Salas J. (eds) *Pattern Recognition*. Vol 11524. Springer, Cham.

5. **Coding 3D connected regions with F26 chain code**

Tapia-Dueñas O.A., Sanchez-Cruz H., Lopez H.H., Sossa H. (2018) Coding 3D Connected Regions with F26 Chain Code. In: Batyrshin I., Martínez-Villaseñor M., Ponce Espinosa H. (eds) *Advances in Computational Intelligence*. Vol 11289. Springer, Cham.

## Teaching Experience

John Carroll University

Fall 2023 | [Elementary Statistics](#).

Fall 2023 | [Database Systems](#).

Cleveland State University

Spring 2023 | [Introduction to Programming](#).

