# Edwing Yair Ulin Briseño

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## EDUCATION

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| Universitat de Girona | Girona, Spain |
| Erasmus Mundus Joiint Master in Medical Imaging and Applications | *Graduation Date: Sep 2024* |

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| Monterrey Institute of Technology and Higher Education | Zapopan, Jalisco, Mexico |
| Bachelor in Science in Biomedical Engineering | *Graduation Date: Apr 2021* |

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| Erasmus Universiteit Rotterdam | Zapopan, Jalisco, Mexico |
| Certificate inCybersecurity in Healthcare | *Graduation Date: Feb 2021* |

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| Fluke Corporation | Zapopan, Jalisco, Mexico |
| Certificate in Quality Control of X-Ray Equipment | *Graduation Date: Feb 2021* |

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| Biomedex Biomedical Engineering | Zapopan, Jalisco, Mexico |
| Certificate in Hospital Managment | *Graduation Date: Aug 2019* |

## WORK EXPERIENCE

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| Intel Corporation | Zapopan, Jalisco, Mexico |
| Functional Validation Engineer | *Jun 2021 - Jul 2022* |

- Developed and executed test plans to verify the functionality of the Mesh and Resource Director Technology for the Xenon processor
- Wrote and maintained test documentation, including test specifications, cases, and results
- Investigated, analyzed, and reported bugs, providing clear and concise reproducible steps
- Validated results of executed test plans to confirm correct functionality of the Mesh and Resource Director Technology for the Xenon processor
- Fromed part of the software interview team, that was in charge on evaluating the programming skills of new intakes for Intel.
- Gained internal certifications in Product Assurance and Security with level white belt and yellow belt.

## PROJECT EXPERIENCE

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| Monterrey Institute of Technology and Higher Education | Zapopan, Jalisco, Mexico |
| Development of tools for help doctors diagnostics epillepsy | *Jul 2020 - Nov 2020* |

- Developed an algorithm that creates neural networks with specific discharge current and number of neurons using four neuron models to graph each neuron discharge and neural activity of the fully stochastic neural network.
- Coded a Matlab algorithm to analyze electroencephalograms to obtain fundamental frequencies, plot them on a polar form, and recognize patterns.
- Create a graph explanation of EEG data that improves diagnostic in a 60%.

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| Monterrey Institute of Technology and Higher Education | Zapopan, Jalisco, Mexico |
| Development of a optical tomography system | *Dec 2019 - Apr 2020* |

- Developed a prototype to reconstruct our imaging phantom using light absorption and test the spatial resolution of our homemade tomography.
- Computed the value absorbed by our phantom to form the sinogram to use a clean image to reconstruct by inverse Radon.
- Improved the reconstruction of the image in a 50% and achieved a fidelity of 80% compare with the original phantom.

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| Monterrey Institute of Technology and Higher Education and San Juan de Dios Psychiatric Hospital | Zapopan, Jalisco, Mexico |
| Development of a medical device prototype of a panic attack analyzer | *Jul 2019 - Nov 2019* |

- Engineered a prototype to measure average heart rate, average breathing rate, and an electrodermal activity sensor to register during a panic attack. Coded an app that recollects through Bluetooth data to display it on a report and save it on the cloud to be analyzed by the doctor.
- Designed a validation process to prove that our prototype measurements are the same as the device used in the medical field. Diagrammed the modules required for the data acquisition in the micro-controller and cleaning routine to visualize the data.

- Implemented software improvements that increased the recording of panic attacks in a 80% and the treatment in a 90%.

## LEADERSHIP EXPERIENCE

Astra Zeneca                                                        Zapopan, Jalisco Mexico

Neurodivesity Hackaton                                               *Feb 2021 - Feb 2021*

- Developed a solution for people with dyscalculia in order to help them in their life duties.
- Generated a decrease in the mistake of people with dyscalculia in a 60% and increase of 70% in the ability to remember numbers in a 70%
- Worked with a team of 5 developers to create the solution in a time window of 48 hrs.

## SKILLS & INTERESTS

**Skills:** Matlab, Java, Python, Latex, Microsoft Office, Data Analysis, Problem-solving, Data modelling

**Interests:** Reading, Teaching, Videogames, 3D printing, Boxing, Skating, and Investigating New Tech.