

Juarez Culau Batista Pires

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EDUCATION

Bachelor of Science (B.Sc), Biomedicine, Dom Bosco Catholic University, 2019-2022

Associate of Applied Science (A.AS), Computer Technician, Pronatec, 2016-2017

Training in the Use of Experimental Laboratory Animals at Dom Bosco Catholic University, 2019

University Extension Course at University of São Paulo, 2022

DNA Damage Responses: Implications in aging and cancer

WORK EXPERIENCE

Software Development, Open-Source Project, 2022-2023

Creation of MABA (Mice Automatic Behavior Analysis): Open-Source bioinformatic tool to extract visual behavior data from mice in neuroscience, leveraging deep learning models

Unreal Developer, Freelancer, 2023

Developed gameplay systems, optimized physics systems, and created 2D and 3D games using Unreal Engine 4 and 5, while also contributing to AI development for enhanced character behaviors

RESEARCH EXPERIENCE

Research Project, Dom Bosco Catholic University - UCDB, 2019

Evaluation of the effects on memory and anxiety of the hydroalcoholic extract of *Heteropterys tomentosa*

Scientific Initiation, Dom Bosco Catholic University - UCDB, 2019-2020

Cellular and Molecular Mechanisms of Synthetic Peptides in a Cellular Model of Neuroinflammation

Scientific Initiation, Dom Bosco Catholic University - UCDB, 2020-2021

Evaluation of Molecular Markers in Breast Cancer Using Data from Genetic Expression

Research Project, University of São Paulo - USP, 2022-2023

Investigation of the effects of Bocaiúva pulp oil (*Acrocomia aculeata*) on anxiety-like behavior and memory extinction in mice

1º Health Data Analysis Hackathon at ITPS (University of São Paulo - USP)

Participated in a hackathon and contributed to the development of a methodology for organizing medical examinations at no cost to users, leveraging epidemiological data voluntarily provided by the population as a whole

PRESENTATIONS

Culau, Juarez (2020). "IL21R, IFNG and FOXP3 Genes Correlated in the Th17 Pathway in Breast Cancer." Presented at the III Symposium on Immunology of the MidWest (SICO)

Culau, Juarez (2021). "Exacerbated Expression of IL21R, IFNG and FOXP3 in the Th17 Pathway of Breast Cancer." Presented at Next Frontiers to Cure Cancer

Culau, Juarez (2021). "Identification of Genes Associated with Apoptosis, Differentiation and Cell Cycle Pathways in Breast Cancer." Presented at the XLV Annual Meeting of the Brazilian Society of Immunology

Culau, Juarez (2021). "Identification of Genes Associated with Apoptosis, Differentiation and Cell Cycle Pathways in Breast Cancer." Presented at the Brazilian Congress of Genetics

GRANTS AND FELLOWSHIPS

100% Scholarship, UCDB Challenge (Dom Bosco Catholic University, 2018)

AWARDS AND HONORS

Best Scientific Work in the Category of Biotechnology Process at Conecte, 2021

SKILL SET

Behavioral Neuroscience
Laboratory Techniques
Bioinformatics
C++ and Python Programming
Tensorflow and OpenCV
Computer Vision
Unreal Engine

LANGUAGES

Portuguese: Native
English: Advanced