

JESSICA CLAIRE

✉ resumesample@example

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Francisco, CA 94105



SUMMARY

Biophysics research student in imaging techniques, also interested in RF/microwave biomedical applications and electronics. Three years of experience as a Mathematics and General Chemistry tutor. Currently becoming a prospective student into a Biomedical Engineering PhD program.

EDUCATION

The University of Texas Rio G
Valley
Brownsville, TX • 2018 –
Brownsville, TX • 2018 –

Bachelor of Science: Engineer
Physics - GPA:
3.77 GPA | A Minor in
Bioengineering
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RESEARCH EXPERIENCE AND PROJECTS

High resolution optical imaging of human leukocytes in aqueous buffer. (PI Guevara Natalia) *Department of Physics, University of Texas Rio Grande Valley (Aug 2016 - present)*

This project focuses on characterization of human blood cells under conditions closer to their physiologic environment to develop a cell atlas by creation of a three dimensional image representing cell's surface.

Study of dielectric properties of glucose solutions for non-invasive biomedical sensing applications. (PI Zhou Yong, Lin Wei) *Department of Electrical Engineering, Department of Chemistry, University of Texas Rio Grande Valley (Jun 2017 - Aug 2017)*

The aim of this study is to understand the behavior of glucose when exposed to high frequency signals to design a non-invasive blood glucose monitoring device for diabetic patients. A frequency domain analysis is used to perform a comparative study of microwave complex dielectric permittivity.

Microwave dielectric spectroscopic measurements using a transmission/reflection line method: benchmark study on aqueous ethanol solution. (PI Zhou Yong, Lin Wei) *Department of Electrical Engineering, Department of Chemistry, University of Texas Rio Grande Valley (Jun 2017 - present)*

We report the dielectric spectroscopic measurements of the aqueous ethanol solution as a benchmark study using a transmission/reflection line method. Complex permittivity of ethanol/water mixture is measured as a function of frequency between 10 MHz and 18 GHz at eleven volume fractions of ethanol (0 to 1).

RESEARCH PRESENTATIONS

- Claire Jessica**, Guevara Juan, Guevara Natalia. (Oct 2017) *"High resolution optical imaging of human leukocytes in aqueous buffer"*. Presented at UTSA College of Sciences Research Conference, San Antonio, TX.
- Claire Jessica**, Michael Carrillo, Ramos Pedro. (Sept 2017). *"Study of dielectric properties of glucose solutions for non-invasive biomedical sensing applications"*. Presented at the Symposium for Undergraduate Research Exploration in the College of Natural Sciences at The University of Texas at Austin, Austin, TX.
- Claire Jessica**, Guevara Juan, Guevara Natalia. (Jul 2017) *"High resolution optical imaging of human leukocytes in aqueous buffer"*. Presented at the School of Medicine Research Symposium at the University of Texas Rio Grande Valley, Edinburg, TX.
- Claire Jessica**, Guevara Juan, Guevara Natalia. (Apr 2017) *"High resolution optical imaging of human leukocytes in aqueous buffer"*. Presented at the Engaged Scholar Symposium at the University of Texas Rio Grande Valley, Brownsville, TX

WORK EXPERIENCE

The University Of Texas Rio Grande Valley - Mentor of PLTL (Peer Lead Team Learning) Chemistry program

City, STATE, • • 2017 - Current

Conducted leadership workshops and weekly training to PLTL Chemistry tutors. Coordinated and supervised tutors' schedule in their daily activities ensuring the program success. Developed a protocol to constantly monitor tutors' performance, hours worked, and students attendance.

The University Of Texas Rio Grande Valley - PLTL (Peer Lead Team Learning) Chemistry Tutor

City, STATE, • • 2017 - Current

Developed a program along with the Chemistry faculty that complements General Chemistry lectures with exercises, group activities and self-explanation among

students. Excellent leadership skills interacting with large groups of students. Generated great interaction and successful discussion between the students to reinforce their knowledge. Final grades were raised by 20% in comparison with previous semesters.

GE (General Electric) - Intern (Lean Manufacturing Internship in GE Power and Utilities)

, , • • 05/2016 - 08/2016

Successfully developed a strategy and solution to a problem faced by the company. It involved logistic of materials, personal, transportation, critical time management and reduction of space that led to a reduction in the cost of a production line by \$30K US. Delivered weekly presentations with updates of the project to the finance, production, quality, and logistic managers. Great team work and communication developing the strategy.

The University Of Texas Rio Grande Valley - Math and Physics Tutor

City, STATE, • • 07/2015 - 10/2016

Provided individual and group tutoring in Differential Calculus, Integral Calculus, University Physics, and Algebra. Developed an outstanding way to interact with students and identify their areas of improvement. Excellent customer service and communication with students. Delivered workshops and reviews to reinforce the knowledge in the mentioned classes

EXTRA CURRICULAR AND AFFILIATIONS

- Officer of Circle K International (CKI). An organization dedicated to provide community service and leadership development. 2016
- Member of the International Dean's List Society. 2015- present
- Member of The University of Texas Rio Grande Valley Dean's List. 2015- present
- Officer of Society of Physics Students (SPS). Organization committed to promote science demonstrating applications of physics in experiments to children. 2015
- Member of Society of Hispanic Professional Engineers (SHPE). 2016- present
- Member of Society of Women Engineers (SWE). 2015- present

TECHNICAL EXPERTISE

- MATLAB
- Autodesk Fusion 360
- Solid Works
- Arduino Software

LANGUAGES

Bilingual Spanish/English

INTERNSHIPS

Successfully developed a strategy and solution to a problem faced by the company. It involved logistic of materials, personal, transportation, critical time management and reduction of space that led to a reduction in the cost of a production line by \$30K US. Delivered weekly presentations with updates of the project to the finance, production, quality, and logistic managers. Great team work and communication developing the strategy.