SUMMARY

As a software developer specializing in data science, data engineering, game development, and neuroscience. My skills are data analysis, game mechanics design, digital signal processing, pattern recognition, and behavioral analysis.

I am enthusiastic about academia with a background in research and mentoring. This makes it possible to combine the fields of technology, science, and education to contribute to research, development, and teaching functions within the academic and technological sectors.

SKILLS

Programming
Arduino, C++, F#, Java, Matlab, Python, R, SQL.

Data
Anaconda, Hadoop, Jupyter Notebook, Mongo DB, My SQL, Pandas, Postgressql, Numpy, Spark, Scikit-learn.

Biomedical Engineering
EEG, EMG, Signal Processing, BCI, fNIRs, Biomedical Instrumention, Biofeedback, Microcontroller, Raspberry, Robotics.

Cloud
AWS, Azure, Google Cloud, Spaces Git Hub, Stream Lite.

Games
Blender, Godot Engine, Game Mechanics, Serious Games, Unity Engine, Unreal Engine.

Software Development
Agile Methodology, Asana, Flask, Git, Linux, Microsoft Project, Networks, Office, Redhat, Requirements, Trello, UML, UI/UX, SCRUM.

KEY ACHIEVEMENTS

★ The best poster award first place Prof. Raul Monroy México, Mexican International Conference on Artificial Intelligence.

★ Best Research Project of the Master Students of the UASLP

COURSES

- ✓ CISCO
- ✓ OOP in C#
- ✓ Neuroscience and NeuroImage
- ✓ Google Data Analysis
- ✓ Competences in Higuer Academic
- ✓ Software Engineering
- ✓ Advanced Stadistic for Data Sciences

STRENGTHS

Effective Communication
Great ability to explain intricate research findings to both academic and non-academic audiences, which significantly enhanced student understanding.

Communication Skills
Able to boil down complex subjects to juniors. Patient, understanding, willing to help, is how my colleagues describe me.

Creativity
I put all my creative effort into finding a solution.

Result-oriented
I always make sure my team is on the right path.

Problem solving
Applied ML algorithms to solve complex data problems, ensuring improved model accuracy.

Teamwork
Collaborated with a team of 5 engineers to design and implement software solutions, improving productivity.

Critical Thinking
Devised creative solutions to complex data problems, resulting in system efficiency.

GONZÁLEZ JUAN CARLOS

Data Analysis | Game Designer | Professor | Neuroscience Research

email: jcgi.laboral@gmail.com
www: https://www.linkedin.com
place: San Luis Potosí, Mexico.

Spanish Native
English Intermediate

EDUCATION

PhD Student in Computational Systems — 2023 – 2025
Universidad del Sur de Chiapas — Tuxtla, Mexico

Master's Degree in Computer Engineering — 2009 - 2012
Autonomous University of San Luis Potosí — San Luis Potosí, Mexico

Bachelor's Degree in computer systems Engineer — 2000- 2005
Technological Institute of San Luis Potosí — San Luis Potosí, Mexico

EXPERIENCE

Game Designer - IAGAMES

2015 – Present **San Luis Potosí, México**

- I collaborated with a team of 5 developers, ensuring the successful integration of the game mechanics.
- I presented and developed game concepts, of which the company developed a pilot.
- I contributed to level designs for puzzle games.
- He supported the game's lead designer in developing new functionality.

Professor

2010 – Present **San Luis Potosí, México**

Universities: JALA University, University of Advanced Technologies, Tec Milenio, UTEL, Universidad Tecnológica el Retoño, Universidad Politécnica de San Luis Potosí and Universidad Autónoma de San Luis Potosí

Courses: Programming, Databases and Software Development, Project Management, Research Methodology, Research Seminar, Software Development and Creation Games, Quantitative Methodology, Creation Games, Artificial Intelligence, Digital Systems, Probability, Computational Theory and Analysis of Algorithms.

Goals:

- Rc_afgle k_qrcp aj_qqcq rm qrsbclrq gl rfc _pc_q md cleglccpgle* qagclac* amknsrgle* _pr _lb bcqgel,
- Jcb rfc pctgcu md cbsa_rgml_j amlrclr qr_lb_pbq* glqrpsargml_j asppgasjsk* _lb qrsbclr _qqcqqkclrq,
- Amk npcfclqgtc bctcjmncb jcqqml nj_lq rf_r glampnmp_rc rfc j_rcqr pcqc_paf glrm rfc asppgasjsk nj_l,
- K_l_ecb pcqc_paf npmhcarq _lb npcqclr_rgml md qrsbw pcqsjrq,
- G aml tcprcb rfc _qqgelcb rc_afgle npmep_k glrm glrcp_argtc c+jc_plgle amlrclr,
- Gr glqrgrsrcb _ qwqrck md jc_plgle _qqcqqkclr `w glapc_qgle _a_bckga amk ncrclac,

Software Developer - FYWARE

2022 - 2023 **San Luis Potosí, México**

- Developer applications Extended Reality.
- Developer of technological platforms in the software area.
- Algorithms developed in software efficiency
- I contributed to the writing of clean and efficient code, improving the performance of the system.
- I collaborated with a team to implement new software.

Data Engineer - University of Alberta

2013 – 2022 **San Luis Potosí, México**

- Cloud security in place and data loss protection
- Automation of the data process between the various sources, for the analysis of biomedical data for the area of study in throat cancer.
- I designed and implemented machine learning models, improving the accuracy of the prediction of the models.
- Processed data for use in machine learning models.

Data Scientist - Universidad Autónoma de San Luis Potosí

2008 – 2017 **San Luis Potosí, México**

- Management of technical data teams and decision-making.
- Developed Data Analysis and Data Science in biomedical such as electroencephalogram (EEG), Electromyography (EMG) and data for air quality prediction in weather systems.
- EMG data analyzed for compatibility and accuracy in pattern recognition.
- Developed an intelligent system for detecting patterns in arm movements in amputees' persons.
- Trained new lab technicians, significantly improving laboratory operations and experiment setups.
- Managed lab inventory and equipment maintenance to data adquisition for signal processing.
- Conducted effective literature reviews using library search engines that influenced the direction of on-going research projects.
- Authored and co-authored four articles in high-impact scientific journals, disseminating key findings to the research community.
- Systematized behavioral analysis processes while maintaining data integrity.
- Linux server administration.
- Arduino programming and embedded systems.

SoftwareEngineer-PrinverS.A.

2005 – 2008 **San Luis Potosí, México**

- Developed applications for Customer Resources Management (CRM).
- Developed of technological platforms in the software area for Project Management.
- Developed Web in HTML/CSS for control the acces to confidential data for projects and customers of the enterprise.
- Manage and configuration of the Network and Server (Data, CRM, Web and Email).
- Helpdesk

PASSIONS

Neurosciences
Data Analysis I enjoy digging into complex datasets to uncover insights and drive improvements.

Creating Puzzle Games
Dedicated to designing intricate puzzles that challenge and entertain players, drawing on expertise in game logic and user engagement.

Cycling Software
I love to unwind by exploring new routes on my bicycle during weekends.

Advanced Imaging Techniques
Enthusiastic about exploring new imaging technologies, particularly in the study of neurological functions and disorders.

CERTIFICATIONS

- ✓ CISCO CCNA I
- ✓ Google Data Analysis
- ✓ Programming Essentials in C++
- ✓ Data Science
- ✓ Database Administrator
- ✓ Server Administrator
- ✓ Unreal Engine
- ✓ Brain Machine Interfaces

PROJECTS

ARMONI

2024 – Present **San Luis Potosí, México**

- Develop a brain analysis application using Functional Near-Infrared Spectroscopy to investigate neurological factors in children with Autism Spectrum.

Decision-making for software development (video games) in the education sector

2023 – Present **San Luis Potosí, México**

- Application of data analysis for the prediction of sales in video games in the education sector.

TEARoom Video Game Project for Children with Autism

2018 – 2022 **San Luis Potosí, México**

- Development of a digital platform (serious games), for use in children with autism.

Climate Prediction System

2015 - 2018 **San Luis Potosí, México**

- Development of an air quality prediction system through data analysis.

Electroencephalogram Analysis for the Detection of Glaucoma

2012 – 2013 **San Luis Potosí, México**

- Detect a Glaucoma using EEG using technics of Artificial Intelligence.

Recognition of myoelectric signals using artificial neural networks

2008 – 2012 **San Luis Potosí, México**

- IIn this project present a methodology for movement pattern recognition from arm-forearm myoelectric signals, starting off from the design and implementation of an electromyography (EMG) instrumentation system.

PUBLICATIONS

EMG PATTERN RECOGNITION SYSTEM BASED ON NEURAL NETWORKS

2012 **IEEE** **San Luis Potosí, México**

- Movement pattern recognition from arm-forearm myoelectric signals using artificial neural network.
- https://ieeexplore.ieee.org/document/6387218

OPTIMIZATION OF AN EMG PATTERN RECOGNITION SYSTEM

2012 **CMBEC** **San Luis Potosí, México**

- This research demonstrates that the selection methodology of electrode positions is an effective technique to optimize an EMG pattern recognition system.
- https://proceedings.cmbes.ca/index.php/proceedings/article/view/761/755