

Cristobal Guerra

Data Scientist

Phone: +569 49233958

Email: cristobal.sebastian.guerra@gmail.com

Location: Santiago, Chile

LinkedIn: [linkedin.com/in/cristobalsgf](https://www.linkedin.com/in/cristobalsgf)

GitHub: github.com/cristobalg68

Portfolio: [portfolio-cristobalsgf](https://portfolio-cristobalsgf.com)

Profile

Data scientist passionate about technology, engineering, and innovation. I have a strong background in programming, data analysis, and problem-solving. I thrive on complex challenges, collaborative environments, and using data to drive meaningful impact. Always eager to learn and apply new knowledge in projects that make a difference.

Areas of Expertise

Data Science - Machine Learning - Computer Vision - Scientific Programming - Neural Networks - Deep Learning - Image & Signal Processing - Data Visualization - Python Development - Technical Problem Solving - Data Preprocessing - Model Deployment - SQL Queries - Cloud Computing - Version Control

Professional Experience

Data Scientist, ([DataQu](#)) **Santiago, Chile** *Jul 2025 - Present*

- Optimización de modelos de machine learning para estimar el gapping en salmones a partir de datos del proceso completo de producción, desde la cosecha en el mar hasta el fileteado, incrementando el coeficiente de determinación (R^2) de 0,07 a 0,5156 mediante limpieza avanzada de datos, ingeniería de características y selección de modelos.

- Despliegue y evaluación de LLM's en la nube para el procesamiento de textos en noticias y comentarios.

Data Scientist, ([Instacrops](#)) **Santiago, Chile** *Aug 2024 - Mar 2025*

- Trained and evaluated computer vision models for fruit detection and phenological analysis, improving yield estimation accuracy by 19%.
- Performed hyperparameter tuning and experimentation with different architectures to optimize model performance.
- Engineered regression-based models for agricultural yield estimation using multisource data, combining domain knowledge with statistical techniques.
- Generated detailed reports and visualizations using Python to communicate results to both technical and non-technical stakeholders.
- Collaborated with multidisciplinary teams to align data science workflows with agronomic goals and business objectives.

Data Scientist Intern, ([Instacrops](#)) **Santiago, Chile** *Feb 2023 - May 2023*

- Designed tools and scripts to support computer vision tasks, including preprocessing pipelines and annotation validation tools.
- Developed and evaluated deep learning models for fruit segmentation and classification using annotated datasets and open-source frameworks (e.g., PyTorch).

Data Scientist Intern, ([Instacrops](#)) **Santiago, Chile** *Jan 2022 - Apr 2022*

- Annotated large image and video datasets using V7Labs for training supervised learning models in agricultural contexts.
- Created color-based computer vision techniques to estimate phenological stages of cherries, supporting decision-making in crop monitoring.

Education

Master of Data Science [University of Chile](#) **Santiago, Chile** *2023 - 2025*

Relevant Courses: Computational Intelligence, Advanced Image Processing, Databases, Massive Data Processing, Deep Learning, Data Science Project & Statistics.

Electrical Engineering [University of Chile](#) **Santiago, Chile** *2021 - 2025*

Relevant Courses: Applied Electromagnetism, Analysis and Design of Electrical Circuits, Electronic and Analog Circuits, Signals and Systems, Digital Systems, Algorithms and Data Structures, Data Mining, Computer Architecture, Design and Programming Methodologies & Computational Intelligence and Robotics Laboratory.

Bachelor's Degree in Engineering Sciences, Electrical Major [University of Chile](#) **Santiago, Chile** *2017 - 2022*

Relevant Courses: Linear Algebra, Differential and Integral Calculus, Calculus in Several Variables, Ordinary Differential Equations, Electromagnetism & Advanced Calculus.

Personal Projects

Depth estimation *Computer Vision Project*

Python, Pytorch, OpenCV, Numpy, Blender

- Adapted a depth estimation neural network to fuse RGB imagery with LiDAR data for enhanced spatial understanding.
- Generated a synthetic dataset using Blender and optimized the model with supervised learning techniques.
- Validated model performance on real-world LiDAR and RGB data, reducing depth estimation error by 38% compared to the baseline RGB-only approach.

Card Scanner *Computer Vision Project*

Python, Pytorch, OpenCV, Ultralytics, Numpy, Pandas

- Assembled a segmentation-based object detection model to identify Pokémon cards in images, video files, or live camera streams.
- Designed a custom GUI to allow users to select input mode (image, video, or live) and manage the processing workflow interactively.
- Integrated functionality to visualize, process, and optionally save the annotated output from the selected input source.

Technical Skills

- **Programming:** Python, Java, Javascript, HTML/CSS
- **Libraries & Frameworks:** NumPy, PyTorch, OpenCV, Matplotlib, Scikit-learn, Pandas
- **Tools:** Git, VS Code, Google Colab, MySQL Workbench, Postman, $\LaTeX$
- **Cloud & DB:** Relational Databases (SQL)
- **Soft Skills:** Teamwork, Problem Solving, Critical Thinking, Adaptability, Self-learning

Languages

- **Spanish** - Native
- **English** – B1 (Intermediate)

Interests

Reading scientific non-fiction – Gym and healthy lifestyle – Traveling to experience diverse cultures – Open-source projects – Personal growth – Cycling