

# Gonzalo Grau

Senior Bioengineering student at ITBA,  
specialized in Machine Learning and Artificial Intelligence

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🐙 GitHub

🌐 LinkedIn

## EDUCATION

- **Bioengineering - Senior year (85%)** 2020-ongoing  
*Buenos Aires Institute of Technology* CGPA: 3.46/4.00
- **Friends of Fulbright 2024 exchange program** Spring 2024  
*University of New Mexico* Completed

## EXPERIENCE

- **Applied AI Engineering Internship at DevRev** Dec 2024 - Present day
  - Helped develop AI powered automations for optimising customer support related processes
  - Provided tailored support for our clients, with a customer-facing approach
  - Skills involved: Typescript, git, GitHub, API management, unit testing, prompt engineering, sprint planning
- **Vice president at the IEEE EMBS ITBA Student Chapter** Aug 2022 - July 2024
  - Vice President for the IEEE Engineering in Medicine and Biology Society student chapter at ITBA
  - Collaborated with international student chapters, as well as multinational health and biotech companies
  - Skills involved: team leading, event planning
- **Teaching assistant at ITBA** Aug 2021 - Present day
  - Assisted in teaching classes in Introduction to Informatics and Data Structures and Algorithms, designed and graded assignments and exams
  - Became proficient in Python programming, source control, and public speaking

## PERSONAL PROJECTS

- **LungoVax: an interactive mechanical ventilation simulator**  
*Awarded a special mention at the Argentinian physiology conference 2023*
  - Models lung response under a wide range of stimuli and experimental conditions
  - Runs on a self-implemented Runge-Kutta 4 based differential equation solver engine
  - Technologies: Python, NumPy, TKinter
- **CircDrosView: an interactive visualizer for single cell transcriptomics on Drosophila melanogaster**  
*Based upon Rosbash's 2021 paper "Transcriptomic taxonomy of Drosophila circadian neurons around the clock"*
  - Extracts, transforms, and loads data from a single cell RNA-seq dataset
  - Allows for dot plot, heatmap, hourly expression, and cell type distribution visualizations
  - Technologies: Python, NumPy, Pandas, Seaborn, Scanpy, Anndata, Streamlit
- **Semi-automatic nuchal translucency measurement**  
*An objective, user independent algorithm to measure nuchal translucency in ultrasound fetal scan*
  - Deep learning based image segmentation, combined with generalized linear regression models
  - Technologies: Python, NumPy, OpenCV, SITK, Keras

## TECHNICAL SKILLS AND INTERESTS

**Languages:** Spanish (native), English (proficient), French (intermediate)

**Programming Languages:** C, Python, MATLAB, Arduino, Typescript

**Libraries:** Numpy, Matplotlib, Jupyter, Scipy, Pandas, sklearn, OpenCV, PyTorch

**Tools:** VS Code, Git, GitHub, Linux, Trello, MS Office, Siemens NX, SolidWorks, mySql, L<sup>A</sup>T<sub>E</sub>X

**Fields of Interest:** ML, AI, Deep Learning, Computational Modeling, Signal Processing, Computer Vision

**Soft Skills:** Autodidact, Adaptability, Agile methodology, Scrum framework

## CERTIFICATIONS

- **MITx Machine Learning with Python: From Linear Models to Deep Learning** 2024
- **MITx Introduction to Computer Science and Programming Using Python** 2022
- **Cambridge Certificate of Proficiency in English (CPE)** 2019
- **International Baccalaureate (IB)** 2019
- **High School Head Pupil and Valedictorian** 2019