Gonzalo Grau

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GitHub
LinkedIn

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

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

•Real-time seizure detection
A machine learning model to detect seizure events in real time based on EEG analysis
- Uses support vector machine to classify short multichannel signal segments
- Performs spatial, statistical, and Fourier analysis
- Technologies: Python, NumPy, Scikit-learn, SciPy

•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, LaTeX
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*