Joel Gottfried

Electronic engineer

PROFILE

Throughout my academic training I sought to become a jack of all trades engineer, incorporating knowledge of different areas within electronics, which include: embedded systems, high and low level programming, neural networks and machine learning, digital communications, FPGAs programming, signal processing, data and image processing and analysis, integrated circuit design, simulation, and robotics. I've done many projects that include Robots, videogames, electronic toys and machine learning.

CONTACT

@ joelgottfried99@gmail.com
☁ Portfolio
☁ GitHub
☁ LinkedIn

PERSONAL INFORMATION

Residence: **CABA, Argentina**

Languages: **Spanish** (Native), **English** (Advanced, FCE)

SKILLS

- Firmware/Software Developer
- Hardware Developer (PCB, Testing)
- 3D Design
- Simulation (Matlab, Octave, Spice)

EXPERIENCE

ELECTRONIC DEVELOPER at *Tesacom (CABA).*
Ago 2022 - today
◇ Development of Hardware and Firmware of IIOT products, including tasks like: PCB design, embedded systems programming, writing documentation and testing.

TEACHER ASSISTANT at *Universidad de Buenos Aires*
Oct 2020 - today
◇ Subject: physics 2 (electrostatic and magnetostatic)
◇ Solving physical problems on the whiteboard.

EDUCATION

ELECTRONIC ENGINEERING.
Universidad de Buenos Aires.   **2017 - 2024**
◇ Thesis: *Diseño, control y automatización de un sistema compuesto por dispositivos de medición para el estudio de descargas de granos en entornos húmedos.*
◇ Main courses: embedded systems, high and low level programming, neural networks and machine learning, digital communications, FPGAs programming, signal processing, data and image processing and analysis, integrated circuit design, simulation, and robotics

TECHNICAL BACHELOR IN ELECTRONICS
Escuela Tecnica ORT.   **2012 - 2016**

PROYECTS

GRAD9000.   **2024**
◇ Guardián robótico, acompañante doméstico. Proyect inspired by the HAL9000 robot from Stanley Kubrick's 2001 Space Odyssey. I used an ESP32 based board for the main logic and an audio module so that it looks like it's talking. Most of the mechanical parts are recicled or 3D printed.

CodeLed   **2024**
◇ Toy for those interested in learning how morse code works. It has an led that blinks following the morse code protocol and a display that shows which character is currently being transmitted. The objective is to decode the phrase being transmitted (ideally not looking at the display).

INGuide   **2023 - 2024**
◇ Videogame born as an attempt to make engineering and STEMs look more appealing by learning through gaming.

Neural Networks for hidrogel detection   **2022**
◇ Used a custom made dataset to train a yolov7 neural network and then used it to detect hidrogels falling through a hopper.

All my projects can be found on my portfolio.