

# Emiliano Fernández Cervantes

Mail: [fdezemi@outlook.com](mailto:fdezemi@outlook.com) Personal Website: [emilian.website](http://emilian.website) Tel.: +1 310-256-5088  
GitHub: [github.com/EmilianFC20](https://github.com/EmilianFC20) LinkedIn: [linkedin.com/in/emiliano-fernandez-cervantes/](https://linkedin.com/in/emiliano-fernandez-cervantes/)

## PROFESSIONAL PROFILE

- Fulbright scholar and engineer passionate about developing hardware and software solutions to improve people's lives.

## EDUCATION

- **M.S. in Computer Engineering**  
University of Southern California  
*August 2025 - Present*
- **B.S. in Biomedical Engineering**  
Tecnológico de Monterrey at Mexico City  
*August 2016 - December 2020*
- **Biomedical Engineering Exchange Program**  
University of North Texas  
*August - December 2019*

## AWARDS & RECOGNITIONS

- **Viterbi Endowment Scholarship (2025-2027)**  
Full-tuition merit-based scholarship.
- **Fulbright Grant (2024)**  
Grant to pursue graduate studies in the United States.
- **Graduated with Honors and Top of the Class (2020)**  
Highest GPA in the B.S. in Biomedical Engineering.
- **Academic Distinction Scholarship (2016-2020)**  
70% tuition merit-based scholarship.

## STARTUP PROJECTS

- **Rivalry**  
Launched an IOS/Android app using the Flutter framework to manage football flag leagues in Mexico.  
*March 2021 - June 2022*
- **NurseCare MX**  
Developed a digital platform to facilitate caregiver services between patients and nurses.  
*April - September 2021*

## SKILLS

- **Programming Languages**  
C/C++, Python, Verilog, CUDA, Bash, VBA, Dart.
- **Software & Tools**  
Linux (Debian based), Modelsim, Cadence Virtuoso, Atmel Studio, Docker, Git (Github), Proteus, Ultimaker Cura, MATLAB, Arduino, Solidworks, LaTeX, Flutter.
- **Languages**  
Spanish (native language), English (C1 level).
- **Soft Skills**  
Team leadership, problem solving, self-learning, creativity, critical thinking.

## WORK EXPERIENCE

### • Sr. Project Support Coordinator - PPD, Part of Thermo Fisher Scientific

Led teams that deliver administrative support to pharmaceutical clinical trials, ensuring regulatory compliance and audit readiness.

Co-led the development of an Excel tool using VBA macros to automate access reconciliation across systems, leading to substantial time savings and reducing regulatory risks in hundreds of clinical studies.

*May 2021 - Aug 2025*

## ACADEMIC PUBLICATIONS

- **Fall Risk Assessment Research Article**  
Fernandez, E., Montesinos, L., Gonzalez, A., & Pecchia, L. (2023). Recurrence quantification analysis of center of pressure trajectories for balance and fall-risk assessment in young and older adults. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 31, 926–935. <https://doi.org/10.1109/tnsre.2023.3236454>

## ENGINEERING PROJECTS

- **ARM-Compatible smart NIC with GPU**  
Currently developing an ARM-compatible Smart Network Interface Card (NIC) with integrated GPU acceleration for optimizing data throughput and computational offload ([Github](#)).  
*January 2026 - Present*
- **Local AI Server**  
Created a local AI inference server, leveraging an NVIDIA GPU with Ollama models and OpenWebui to accelerate AI workloads. Currently integrating a Discord bot for secure, private document querying.  
*September 2024 - Present*
- **Customized 3D Printer**  
Assembled and modified an Ender 3, updating the motherboard and compiling Marlin firmware to manage the modifications. A Raspberry Pi running Octoprint was used to control the printer remotely.  
*December 2020*
- **Vital Signs Monitor**  
Assembled a vital signs monitor capable of recording electrocardiogram, pulse frequency, and temperature using Arduino.  
*November 2020*
- **Customizable Hearing Aid Device**  
Designed a customizable hearing aid device for people with hearing loss problems using Solidworks and MATLAB.  
*May 2020*
- **Human-Machine Interface (HMI) for Electric Wheelchair**  
Designed and developed a human-machine interface using Arduino and Python to detect and classify eye movement signals to control an electric wheelchair for people with tetraplegia.  
*May 2020*