Stefano L. Poma

Marietta, Georgia, 30062, USA
+12673930353 | stefanopoma4@gmail.com
Nationality: EU | USA
Date of Birth: 01/22/2003
Marital Status: Single

Professional Summary

A Georgia Tech Biomedical Engineering graduate with hands-on experience in medical device development, computational neuroscience, product testing, iOS app development, and creating predictive machine learning models. Fluent in English, Spanish, Italian, and French.

Education

Georgia Institute of Technology | Atlanta, GA, USA June 2021 – Present
Masters of Science in Biomedical Engineering **Expected Start:** August 2025 | **Expected Graduation:** May 2027
Bachelor of Science in Biomedical Engineering **Expected Graduation:** May 2025
GPA 3.92/4.0 (US Grading Scale)
CS Minor in Artificial Intelligence
Honors: *Faculty Honors*

Work Experience

Halyard Health | Alpharetta, Georgia, USA | Summer Contractor June 2024 - August 2024
• Developed a testing system to identify and reduce potential sterilization wrap formulation errors
• Classified and Analyzed sterilization wrap formulation test results in excel using pivot tables and graphs
• Designed a searchable and user-friendly database for patent claims analysis to assist in new product development

Project Experience

Capstone Design Project January 2025 - Present
• Created and am now Implementing a plan to turn our final design into strong Intellectual Property globally
• Rapidly prototyped a surgical retractor arm
• Conducted User Interviews and User Studies of our product

ML Model Project January 2025 - Present
• Creating and Testing an ML model to predict future soybean yields based on seed genotype, salicylic acid and water concentrations, and leaf chlorophyll levels
• Collected and Cleaned large datasets before creating the ML model

Singer Lab at Georgia Tech **|** *Undergraduate Researcher* August 2023 – Present
• Leading and training a team to simulate neuron firing rates and synaptic dynamics in the CA3 region
• Modeled CA3 region using brian2 import in python and optimized by integrating cuda to leverage gpus
• Modeled optogenetic stimulation effects on CA3 neuron activity using CLEOsim

MedTech February 2024
• Designed and Soldered a PCB board to predict asthma attacks based on fluctuations in the chest wall
• Collaborated and used laser cutting to create a product casing with functionality and protection

Vertically Integrated Project August 2023– December 2023
• Collaborated to design a rehabilitative medical device for arm injuries
• Designed an accelerometer in Solidworks to measure arm movement

Brain Trauma Assessment Protocol January 2023– May 2023
• Developed a Swift-based UI that tracked stroke victims' progress and suggested additional exercises for recovery
• Acquired and applied Swift coding techniques to improve the project's user interface

Accelerometer Bracelet for Early Stage Parkinson's Disease Diagnosis January 2023 – May 2023
• Led the team in programming an Arduino based device to detect Parkinson's symptoms via hand tremors

• Collaborated with a team to create a business plan and user studies

Skills

Programming Languages: *Java, Matlab, Arm & x86 Assembly, C, C++, Python*

AI: *Machine Learning, Deep Learning, and Image Recognition*

Rapid Prototyping: *Fusion 360, Solidworks, Inkscape, Laser Cutting, 3D Printing, and PCB Soldering*

Languages: *English (Fluent), Spanish (Fluent), Italian (Fluent), and French (Fluent)*

Extracurricular Activities

Medical Robotics | **Atlanta, Georgia** January 2022 – May 2024

• Implemented C++ and Arduino code to integrate a touch experience for transradial amputees

Computational Chemistry| Marietta, Georgia June 2022 – July 2022

• Modeled molecular interactions using basic quantum mechanical equations

Bioinformatics | Atlanta, Georgia January 2023 – Present

• Explored systems for rapid analysis of large-scale biological data

President of YEF | Atlanta, Georgia August 2024 - Present

• Led recruitment initiatives, increased membership by 300%

• Developed retention strategies and streamlined communication channels to improve member engagement