# PATRICIA L. GARCIA

**OBJECTIVE:** Bilingual engineering student with a passion for engineering seeking a Summer 2021 graduate internship (May-Aug)

#### **EDUCATION**

#### University of Southern California (USC)

Los Angeles, CA

Master of Science in Product Development Engineering

Product Development Systems Track Affiliations: 2021 GEM Full Fellow

Expected Graduation: April 2023

Florida International University (FIU), Honors College

Miami, FL

Bachelor of Science in Interdisciplinary Engineering, Manufacturing Engineering Concentration

Minor in Business Management

April 2021

Cumulative GPA: 3.46/4.0 Florida Bright Futures Academic Scholar

Affiliations: Society of Women Engineers (SWE), Society of Hispanic Professional Engineers (SHPE)

# **WORK EXPERIENCE**

#### Medtronic Cardiac and Vascular Group (CVG)

Brooklyn Park, MN (Remote)

June 2020– August 2020

Manufacturing Engineering Intern

• Applied DMAIC problem solving methodologies to prove feasibility of post label print scan verification

- Utilized critical thinking skills to identify a novel quality improvement process that decreased amount of CAPA, NCMRs, and escapes
- Worked cross functionally with various teams and stakeholders to achieve quality standards
- Communicated key takeaways and best practices to senior leadership

### RESEARCH EXPERIENCE

University of California Berkeley- Tsinghua-Berkeley Shenzhen Institute (TBSI) Data Science and Information Center

Berkeley, CA

Mechanical Engineering Research Intern

June 2019- August 2019

- Led a synergistic, multi-institutional research project between UC Berkeley and Tsinghua University focused on global transformational, translational, and trans-disciplinary collaboration
- Designed a low-cost wrist-based piezoelectrect pulse sensor to provide an economical solution for pressure measurement
- Collected and analyzed experimental pulse data from volunteers using a self-developed pulse sensing system
- Communicated results at lab meetings and national conferences via poster and oral presentations using PowerPoint

Massachusetts Institute of Technology (MIT)- d'Arbeloff Laboratory for Information Systems and Technology Mechanical Engineering Research Intern

Cambridge, MA

echanical Engineering Research Intern

• Engineered skeletal muscle tissues for use in the development of actuators for bio-robots, pre-clinical drug advances, and

- Established a project timeline and provided weekly progress reports to Singapore based principal investigator
- Established metrics for evaluating project performance and progress through both quantitative and qualitative measures
- Managed material inventory and purchased lab supplies while maintaining related records
- Created protocols including research methodology, report preparation, and operating equipment

Worcester Polytechnic Institute (WPI)- Life Sciences and Bioengineering Center at Gateway Park

Worcester, MA

# Bioengineering Research Intern

May 2017 – August 2017

- Designed experimental method for the manufacturing of fibrin microthreads for treatment of myocardial infarction
- Developed a protocol for assessing the integration of the composite components
- Evaluated integration of components through tensile testing to determine the specimen's ultimate tensile strength (UTS)
- Delivered clear and concise abstract summarizing all relevant research material, data, and results
- Organized all charts and graphs with statistical analyses with publication quality formatting using Sigma Stat and Sigma Plot software
- Communicated results at lab meetings and national conferences via poster and oral presentations using PowerPoint

### **PROJECTS**

college thrifts LLC- Social Venture

Miami, FL

- Identified opportunity to develop a B2C (re)commerce application to promote sustainability and inclusion across college campuses
- Bootstrapped \$31,000 from national pitch competitions and obtained feature in national press articles including NASDAQ
- Designed and developed a user-friendly website as a launching pad (https://www.collegethrifts.com)
- Developed detailed storyboards, mockups, and prototypes to effectively communicate interaction and design ideas
- Built strategic marketing and business development plans
- Currently working on developing a web application
  - Awards: 1st place Venture Bites Pitch Competition, 3rd Place Carnegie Mellon University Venture Challenge, Draper Pitch Competition Semi-Finalist, Clinton Global Initiative University (CGI U), 1st Place Global Shapers Miami Pitch Competition Winner, NCWIT Collegiate Award Finalist, HATCH(let) Pitch Competition First Place Winner, Forge 2020 Pitch Competition Winner, #CEOGLOBAL2020 Pitch Competition Semi-Finalist, El Poder del Pitch LTX Fest Pitch

Competition Winner, 1776 Fall 2020 Cohort 3rd Place Verizon x LULAC Latino Flash Pitch Competition Winner, 2020 Millennium Fellowship, Her Campus Aussie Roo Crew Fellow, FastTrac TM Early Risers Academy Pitch Competition Winner, Watson Institute Sustainability Fellowship, startIMPACT Pitch Winner, ONESIXONE Summer Founders Cohort, 2020 Daveler Entrepreneurship Fellow, iChange FIU Social Innovation Challenge Winner, Robert V. Farrell Global Learning Scholarship in Sustainable Development

#### Wearable Device for Remote Monitoring of COVID-19 Patients- Florida International University

Miami, FL

- Participating in a two-semester senior design project with four team members to design and develop a multipurpose wearable device
- Developing a cost analysis for the manufacturing process to lower manufacturing costs using the basis of "fit, form, and function"
- · Assessing and analyzing stakeholder needs in order to develop an effective product for everyday use
- Organizing weekly meetings with faculty advisors to discuss progress, issues, and next steps

#### Smart Pantry- Stanford University

Palo Alto, CA

- Worked in a team of five during a 36-hour hackathon to create an Android app and website to track the status of perishable items for consumers, distributors, and aid organizations using Android Studio, JavaScript, Balasmiq, Twilio, and Wix
- Responsible for the wireframing and prototyping of the app using Balsamiq and all-purpose website using Wix for judging

#### **CONFERENCE PRESENTATIONS**

- Society of Hispanic Professional Engineers (SHPE) Engineering Science Symposium, Phoenix, AZ October 2019
- National Conference for Undergraduate Research (NCUR), Kennesaw, GA April 2019
- Conference for Undergraduate Research (CURE) at FIU, Miami, FL, April 2019
- Emergent Behaviors of Integrated Cellular Systems (EBICS) Annual Retreat, St. Charles, IL, July 2018
- Emerging Researchers National Conference in STEM, Washington, D.C, February
- Annual Biomedical Engineering Society (BMES) Conference, Phoenix, AZ, October 2017
- Florida International University (FIU) McNair Scholars Research Conference, Miami, FL, October 2017
- University of Miami (UM) Summer Research Symposium, June 2016

# AWARDS AND ACHIEVEMENTS

2021 GEM Full Fellowship, March 2021

2021 National Center for Women & Information Technology

(NCWIT) Collegiate Award Finalist, December 2020

2020 National Action Council for Minorities in

Engineering (NACME) Scholar, September 2020

2020 GMiS Mellado Family Scholarship, September 2020

2020 United Nations Millennium Fellow, July 2020

Hispanic Information Technology Executive Council

(HITEC) Scholar, June 2020

Bold.org Minority Women in STEM Finalist, May 2020

startIMPACT Scholarship, May 2020

NCWIT Change Leader Scholar, May 2020

Scientist Mentoring & Diversity Program (SMDP) MedTech

Scholar, April 2020

Discover Bloomberg: Women in Engineering. April 2020

2020 Daveler Entrepreneurship Fellow, April 2020

Robert V. Farrell Global Learning Scholarship in

Sustainable Development, March 2020

iChange Social Innovation Challenge 2nd Place, March 2020

Forbes Under 30 Scholar, October 2019

Discover SHPE Scholarship, October 2019

GMiS Latina STEAM Team Scholarship, September 2019 GMiS Shell Oil Company Pathway Award, September 2019 HACU ¡Adelante! Leadership Institute Scholarship, July 2019 Engineering Division of the Council for Undergraduate Research Scholarship, April 2019

MIT Hacking Healthcare Hackathon 3rd Place, December 2018 SAS Undergraduate Success Scholarship, December 2018 John S. Martinez Leadership Scholarship, November 2017

FIU Golden Drum Scholarship, May 2017

FIU Alumni Association Legacy Scholarship, May 2017 UWS Miami Bayside Foundation Scholarship, May 2017

Commission for Women Scholarship, May 2017

Lucha Latina Scholarship, May 2017

Garcia Perseverance Scholarship, May 2017

Commissioner Willy Gort Foundation Scholarship, May 2017

Ortega Foundation Scholarship, May 2017

Miami Dade Fair and Expo Scholarship, May 2017

Youth Leadership Miami Scholarship, May 2017

Miami Dade Mayor's Pursuer of Excellence Award, May 2017

Smith College Woman of Distinction, October 2016

Howard Hughes Medical Institute (HHMI) Scholar, August 2016

# **SKILLS**

- Microsoft Office, SolidWorks, Lean Sigma DMAIC Problem Solving, C++, MATLAB, HTML/CSS
- Native English and Spanish Speaker

#### **CERTIFICATIONS**

SW47x: Entrepreneurship in Emerging Economies

Harvard Business School

Lean Sigma DMAIC Problem Solving

Medtronic

Biomedical Responsible Conduct of Research CITI Certification

Massachusetts Institute of Technology

Cambridge, MA August 2020 Brooklyn Park, MN

> Cambridge, MA *June 2018*

*June 2020*