Jazmin Lagier

Miami, FL | +1(786)731-5437 | jazminlagier@gmail.com |
https://www.linkedin.com/in/jazminlagier/ | https://portfolium.org/JazminLagier/portfolio

EDUCATION

Florida International University, Miami, FL 2023
PhD Student, Computer Science
Relevant Courses: Analysis of Algorithms, Neural Networks, Advanced Deep Learning, Theory of Computation

Cornell University, Ithaca, NY 2023
Master of Engineering, Biomedical Engineering
- Thesis: "Deciphering and Controlling Lymphatic Function Using Microphysiological Systems"

Relevant Courses: Engineering Principles for Drug Delivery, Precision and Genomic Medicine, Tissue Engineering

Florida International University, Miami, FL
Bachelor of Science, Major in Biomedical Engineering, Minor in Chemistry 2022
- Thesis: "Epidermis-on-a-Chip: A Microfluidic Platform for Wound Biomarker Studies"

Relevant Courses: Molecular Engineering, Materials Engineering, Biomaterials, Medical Instrumentation and Design

HONORS AND AWARDS

- **Research Assistantship,** College of Computing Information Sciences, Florida International University 2025
- **Research Assistantship,** College of Engineering and Computing, Florida International University 2024
- **Ignite Fellowship,** Praxis Center for Venture Development, Cornell University 2023
- **Honors Scholar,** The Honors College, Florida International University 2022
- **Franco-American Baccalaureate,** Economics and Applied Mathematics, Ministère de l'Éducation Nationale 2017

RESEARCH EXPERIENCE

Parallel Computing and Data Science Lab, Florida International University 2023 - 2024
Graduate Researcher under Dr. Fahad Saeed

Bio-MEMS and Microsystem Lab, Florida International University 2023 - 2024
Graduate Researcher under Dr. Shekar Bhansali
- Engineered molecularly imprinted polymer-based sensor for voltammetric detection of cortisol and estrogen
- Trained on additive manufacturing: computer-aided modeling, stereolithography and fused deposition modeling

Lee Lab, Cornell University 2022 - 2023
Graduate Researcher under Dr. Esak Lee
- Engineered a microphysiological system to simulate intestinal-lymphatic interactions
- Optimized design and fabrication using computational modeling, automated 3D printing, and Lean methodologies
- Applied Agile workflows alongside literature reviews to iteratively refine system development and address gaps

Bio-MEMS and Microsystem Lab, Florida International University 2021- 2022
Undergraduate Researcher under Dr. Shekar Bhansali
- Designed and fabricated a human epidermis microphysiological model for wound healing studies
- Engineered PDMS scaffolds and characterized mechanical properties (stress, strain, elasticity)
- Integrated electrochemical biosensors for pH and uric acid to enable real-time biomarker analysis
- Optimized prototypes using SolidWorks for structural refinement and COMSOL for physiochemical simulations

Drug Delivery and Imaging Guided Therapy Lab, Florida International University 2021- 2022
Undergraduate Researcher under Dr. Anthony McGoron
- Evaluated the integration of nanoparticles in hydrogels for drug delivery systems
- Optimized protocols for wetlab, image processing, confocal and fluorescent imaging

PROFESSIONAL EXPERIENCE

Teacher Assistant, Dr. Alexander Pons, Florida International University Summer 2024

- Evaluated coursework for +120 engineering students in Telecommunication Networks (TCN4211)

Engineer Intern, Praxis Center for Venture Development, Cornell University Spring 2023

- Designed and executed ultrasonic imaging protocols for a pre-market device to analyze skin characteristics
- Managed sample preparation, data acquisition, and image processing, delivering reproducible results
- Conducted literature reviews to refine protocols and ensure compliance with biomedical standards
- Improved device performance through quality assurance testing, ensuring precision across 100+ samples
- Collaborated with interdisciplinary teams to enhance data analysis workflows and software usability

PRESENTATIONS

"Deciphering and Controlling Lymphatic Function Using Microphysiological Systems" Lagier, J.; Lee, E.; et al.
[Oral] Cornell Meinig School of Biomedical Engineering. Research Exposition. Ithaca, NY 2023
[Poster] Cornell Meinig School of Biomedical Engineering. Poster Exposition. Ithaca, NY 2023

"Epidermis–on–a–Chip: A Microfluidic Platform for Wound Healing Studies" Lagier, J.; Bhansali, S.; Kamat V.; et. al.
[Oral] Florida International University Biomedical Engineering. Senior Research Exposition. Miami, FL 2022
[Poster] Florida International University College of Engineering. Senior Design Showcase. Miami, FL 2022

SPECIALIZED SKILLS

Languages: English, Spanish and French (Fluent); Italian (Basic)
Wet Lab: Mammalian Cell Culture, ELISA, PCR, Imaging (Confocal, Fluorescent, Ultrasonic)
Technical: 3D Printing (SLA, FDM), Soft Lithography, Molecularly Imprinted Polymers, Cyclic Voltammetry
Software: Python, TensorFlow, Keras, PyTorch, MATLAB, SolidWorks, Slic3r, Microsoft Azure (AI-900 certified)

LEADERSHIP

Corporate Co-Chair, Graduate Society of Women Engineers, Cornell University 2022 - 2023
Commitee Member, Upsilon Pi Epsilon, Florida International University 2022
First Place, College of Engineering Senior Design Showcase, Florida International University 2022

Represented FIU in multiple social entrepreneurship competitions through the StartUp FIU initiative

- Competitor, Hult Prize Impact Summit (UMass Amherst), Hult International Business School 2021
- Competitor, Hult Prize Impact Summit (Melbourne,) Hult International Business School 2020
- Competitor, StartUp Pitch Competition, The Miami Herald 2020
- First Place, Hult Prize OnCampus, Florida International University 2020
- Second Place, Hult Prize OnCampus, Florida International University 2019
- Competitor, eMerge Pitch Competition, Florida International University 2019

IRONMAN All World Athlete Award, Top 10% Globally 2020
First Place, IRONMAN 70.3 Florida 2019 (AD: F18-24) 2019
Competitor, IRONMAN 70.3 World Championship 2019