Bryce Rogers

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(925) 519-8279
Brooklyn, NY

B.S. Mechanical Engineering | University of Southern California | 3.92GPA
Multi-disciplinary engineer commited to thoughtful technology development

WORK

MECHANICAL ENGINEERING LEAD *2025 - present*
SIMULATE | Brooklyn, NY

- Design+fabricate machines that execute unit operations in continous edible fiber manufacturing process, e.g. extrusion, washing, dewatering, coating
- Designed and implemented process control system for real time, remote measurement and manipulation of process variables such as pH, pressure, pump flow rate, and motor speed

PROCESS ENGINEER *2023 - 2024*
TômTex | Brooklyn, NY

- Designed electromechanical systems for in-house processing of shrimp shell derived textile — enabled scale up from 3' sheets to 20' rolls

MECHANICAL ENGINEER *2024*
CarbonBridge | Newark, NJ

- Developed bioreactor+fluid control system that enabled startup's first consistent+measurable production of bacterial methanol
- Designed+fabricated second system that scaled up in-lab production by ~10x

LEAD BIOMECHANICAL ENGINEER *2023 - 2024*
Edge Foods | Manhattan, NY

- Led hardware development for mammalian cell fermentation startup, e.g. bioreactor with integrated sensors and feedback and device that encapsulated cells in hydrogel beads
- Designed+executed downstream processes (filtration, concentration, drying) to prepare protein product samples for delivery to ~10 potential customers

BIOMECHANICAL RESEARCHER *2020 - 2022*
University of Southern California | Los Angeles, CA

- Solely accountable for simulated data on two papers coauthored under Dr. Niema Pahlevan investigating fluid-solid dynamics of compliant vessels
- Automated the generation, execution, and postprocessing of 100+ aortic bloodflow simulations using Matlab, CFD software, and Windows Command Line

ASTROBIOLOGY RESEARCH ASSISTANT *2017 - 2018*
NASA Ames Research Center | Moffett Field, CA

- 3D modeled and tested efficacy of collection cones designed to gather Enceladus plume debris for ELSAH mission proposed by Dr. Christopher McKay

SKILLS

Computer-Aided Design	Solidworks, NX, Fusion 360, AutoCAD, FreeCAD, SketchUp, Inkscape
Fabrication+Prototyping	3D printing, laser cutting, 3 axis CNC, shop equipment, plasma cutting
Data Analysis+Visualization	Matlab, Mathematica, Python, Excel, Github
CFD+Other Simulation	ADINA, OpenFOAM, Simulink
Electronics+Controls	Arduino, Raspberry Pi, NI LabVIEW, PID design, Command Line
Mammalian cell culture	Freezing, thawing, centrifugation, passaging, suspension adaptation
Bioprocess Design	Suspension bioreaction, protein filtration+concentration, freeze drying
Technoeconomic Analysis	Spreadsheet models for process economics and scale up

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