

EDUCATION

Stanford University, 2015-2019 - GPA: 3.7

- B.S, Biomechanical Engineering with Honors

Stanford University, 2019-2021 - GPA: 3.7

- M.S, Mechanical Engineering
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WORK

Mechanical Engineer, R&D - Rani Therapeutics: Aug 2021-Present

- Current responsibilities include micromold/tooling design for the RaniPill oral biologics delivery platform, data analytics, manufacturing automation, and materials research
- Project lead for R&D development of next-generation RaniPill device
- Led design V&V process for the RaniPill device, including project management, protocol writing, test execution, and report generation

Course Assistant - Stanford Product Realization Lab: Sep 2019-Jun 2021

- Responsible for the operation/safety of the on-campus machine shop, wood shop, metal foundry, wood shop, plastics lab, and rapid-prototyping facility with over 1200 users
- Taught undergraduate and graduate courses on mechanical design, CAD, and manufacturing
- 2020-2021 foundry specialist, responsible for management, teaching, and maintenance of Stanford's sand casting and metal casting facility

Mechanical Engineering Intern - Cairn Biosciences: Jun 2020-Dec 2020

- Designed, fabricated, and validated a proprietary hardware platform for high-throughput microfluidics research of cancer therapeutics
- Developed an in-house manufacturing system for rapid production of multi-purpose microfluidics chips

Mechanical Engineering Intern - Indrio Technologies: Summer 2019

- Designed, prototyped, and machined parts for a high-precision laser chemical sensor
- Optimized design of parts for high-vibration and extreme temperature environments

Research Assistant, Stanford University Yang Lab: Jan 2017-Jun 2019

- Researched tissue engineering devices for clinical medicine, specifically in bone repair
 - Led several projects in the design/manufacturing of biodegradable medical devices
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RESEARCH

Co-first author, *"Systematic characterization of 3D-printed PCL/ β -TCP scaffolds for biomedical devices and bone tissue engineering: Influence of composition and porosity."* Journal of Materials Research, **80+ citations**

- Examined the mechanical/chemical properties of bio-mimetic, 3D printed medical devices designed for short-term bone replacement and regeneration

Co-lead, *"Development of a novel manufacturing platform for medical device design."*

- Worked on an honors thesis project to build an integrated additive manufacturing platform for creation of biodegradable medical devices for tissue engineering
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SKILLS

- Bilingual (English/Mandarin Chinese)
- Experienced in CAD/CAM (SolidWorks/Fusion 360), machining, 3D printing, CNC milling, GD&T, injection molding, topology optimization, and other rapid-prototyping methods
- Comfortable working under ISO 13485 and utilizing GMP, GDP, and performing DFMEA
- Proficient in MATLAB, Python, and G-Code, familiar with R