

CONNIE YU

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EDUCATION

University of California, Berkeley – B.S. – Dec 2018

Bioengineering major, Mechanical Engineering minor (GPA: 3.92/4.0)

WORK EXPERIENCE

Noah Medical

03/2021 – 09/2026

Mechanical Engineering Tech Lead

San Carlos, CA

- Led team of 5 consultants in development of surgeon console (stereoviewer, touchscreen, ergonomic adjustability, foot pedals) and haptic manipulators (7 DoF robotic arms) through 3 generations of prototyping and to pilot builds
- Facilitated cross-functional collaboration: controls engineers to develop kinematic models and select motors and sensors; clinical engineers to optimize procedure workflow and determine requirements; electrical engineers to design PCBA footprints and harnesses; industrial engineering to incorporate ergonomics and usability
- Drove program-level technical strategy, schedule, and resourcing with project management
- Worked with supplier engineering and manufacturing teams on production vendor selection, manufacturing line layout, assembly equipment selection, assembly aid fixture design, and MPIs

Mechanical Engineer / Senior Mechanical Engineer

- Developed capital equipment for robotic bronchoscopy system from prototype to design verification execution
- Designed and built fixtures for characterizing product performance (IPX, instrument accuracy, motor torque, etc)
- Owned drafting and review of requirements, dFMAs, and test cases
- Processed complaints from the field and performed root cause analysis on returned equipment
- Oversaw machine shop area, training others on proper equipment usage and regularly maintaining equipment

suitX

01/2019 – 03/2021

Mechanical Design Engineer

Emeryville, CA

- Designed and tested recreational robotic knee orthotic: remotely actuated cable-driven knee joint and all knee hardware (adjustable knee braces, don/doff strapping attachments, breathable padding, cable routing)
- Troubleshoot and iterated on mechanical design of military disaster relief exoskeleton, improving ease of assembly and simplifying BOM to reduce costs
- Built test jigs for fatigue cycling of mechanical components in passive exoskeleton product lines

Abbott Laboratories

01/2018 – 08/2018

Manufacturing Engineering Co-Op

Pleasanton, CA

- Iterated, characterized, and validated new production process controls for manufacturing optimization of HeartMate 3 Left Ventricular Assist Device (LVAD)
- Optimized epoxy potting process, resulting in six-fold reduction in process time and new quality checkpoints
- Simulated fluidic diffusion in COMSOL and lay groundwork for new helium leak testing procedure of hermetic welds, with estimated ten-fold ROI in the first year

Aesculap Implant Systems

05/2017 – 08/2017

R&D Engineering Intern, Customized Instruments

Breinigsville, PA

- Modified ortho and neural surgical instruments and prototyped custom designs per surgeon request
- Created 3D models and drawings and collaborated with in-house machinists for manufacturing
- Documented instrument information in DHFs, handling functional test verification and product risk identification and mitigation

SKILLS

- **Fabrication:** CNC machining and design (mill, waterjet), manual mill and lathe, injection mold design, 3D printing & laser cutting, silicone casting, carbon fiber layup, photo/soft lithography, woodworking, electronics (KiCad, Arduino, Raspberry Pi; basic programming in Python and C++)
- **Applications:** SolidWorks, CATIA, AutoCAD, COMSOL, MATLAB, Adobe Creative Suite, Blender
- **Instructables (Autodesk) Featured Author:** 104 projects, 45 contest wins, 2.2+ million views