IAN DANIEL ST. LOUIS

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EDUCATION

2014 - 2019 UNIVERSITY OF CALIFORNIA, BERKELEY

	GPA	Graduation
M.S. Mechanical Engineering	(3.9/4)	Dec. 2019
B.S. Mechanical Engineering	(3.7/4)	Dec. 2018

TECHNICAL SKILLS

Core Competencies: Product Design, GD&T, CAD, FEA, Drafting, DFMEA, DFM, Fixture Development, Instrumented Mechanical Testing, Statistical Process Control and Data Analysis, SWE Application Development

Software: NX, SolidWorks, MATLAB, LabVIEW (CLAD certified), AutoCAD, JMP, ANSYS (prof.), Instron

EXPERIENCE

Feb. 2020 - pres. PRODUCT DESIGN ENGINEER — Cupertino, CA

Apple— iPhone and Watch Displays

- Leading product design on next-gen Apple Watch displays.
- Drove architecture design, tolerance analysis, and failure analysis for the iPhone 13 mini display program from prototype to mass production.

Summer 2019
- Designed a robust hardware and software package for instrumented dynamic impact testing of displays.

Summer 2018
- Developed an electro-opto-mechanical fixture for 6-axis, sub-micron, programmatic alignment of a device.

Jan-Aug 2017
- Drove failure analysis and designed experiments to determine the root cause for the highest risk display issues faced during iPhone 8/8+ development.
- Directed a study to evaluate the parameter-space, effectiveness and vendor-side application of new methods to test fracture strength of OLED passivation on Series 2, 3, and next-gen Watch displays.
- Analyzed SPC data and implemented corrective actions for process deviations on iPhone 8/8+ display builds.
- Built a widely used SW application to drastically improve engineers' efficacy in synthesizing FAI/SPC build data.

Jan. 2016-17 BIO-INSPIRED ROBOTICS RESEARCHER — Berkeley, CA

UC Berkeley CiBER Lab— Dr. Robert Full

- Led the construction, design, programming, testing and documentation of an under-actuated robot as part of a research project to mimic the mobility and dynamic turning of lizards.
- Designed robot in SolidWorks, programmed in Arduino. Constructed using a laser-cutter and ProJet 3D printer.

Summer 2016 ENGINEERING INTERN — San Diego, CA

Leidos— Surveillance and Reconnaissance Division

- Developed pseudo-data generation algorithms in MATLAB and Python as an alternative to cross-validation, to provide a robust method of determining a machine learning classification algorithm's error on new data.
- Executed spectroradiometric tests, thermal calculations and analysis, 3D modeling, FEA and presentations to iteratively design printed circuit boards for demanding military vehicular application.

PROJECTS

Jan-May 2018 BUILT TO TILT — Berkeley, CA

Senior Capstone Project—ME 102b

- Derived analytical models, wrote electromechanical component code, and drove the assembly design and fabrication for a beautifully intricate, survival-based arcade game.

Spring 2016 1st Place Prize | LARGE-SCALE WATER CONDENSER DESIGN — Berkeley, CA

UC Berkeley-wide $12k Design Competition

- Led a team of five to the 1st place prize, driving the creation of a proof of concept design for a device which passively condenses water from the air.