

Benjamin Chia

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EDUCATION

University of California, Davis

Expected Graduation: June 2020

Bachelor of Science in **Mechanical Engineering**

Minor in **Electrical Engineering** (Emphasis: Communication & Signal Processing)

GPA: 3.30/4.00

SKILLS

- **CAD & Fabrication:** SolidWorks, AutoCAD, SketchUp, ESPRIT, Machine Tools, 3-D Printing, GD&T, Strain/Stress Material Testing, FEA Analysis
- **Programming:** LabVIEW, Visual Basic for Applications (VBA), Excel, MATLAB, C, Arduino, Quartus II, ModelSim Altera
- **Technical:** Fixture Design, Test Method Validation, Product Characterization, Failure Analysis
- Fluent in Mandarin (Bi-lingual)

EXPERIENCE

Boston Scientific—R&D Engineering Intern, Los Gatos, CA June-September 2018

- Led the testing and failure characterization of next-generation Mantra heart valves.
- Developed new 29mm valve seal design from initial drawing in Solidworks to prototype manufacturing.
- Designed custom valve fixtures in durability testing, successfully reducing seal-to-frame slippage by 70% of original distance.
- Created component-level seal tensile strength tests, conducting tests on 15+ manufacturing methods.

Human Performance Lab—Undergraduate Student Researcher, Davis, CA April 2018-Present

- Analyzed research and assessed the efficacy of standing desks on biomechanical factors.
- Built a web-application as an alternative to standing desks that focuses on short light-intensity exercise.

Regional San—Mechanical Engineering Intern, Elk Grove, CA June 2017-January 2018

- Coded a comprehensive data transfer tool to automate data validation of 10,000+ points of wastewater plant data that was used by various departments.

Sports Biomechanics Lab—Undergraduate Research Assistant, Davis, CA April–August 2017

- Measured variance in user bicycle handling under different inertial conditions in looking at human operator control.

PROJECTS (Portfolio: bjchia.github.io)

CNC Machine Structure Optimization, Mechanical Design, UC Davis November 2018

- Conducted structural analysis on body of CNC machine to optimize rigidity by 40%.

Gyroscope Design & Fabrication, Manufacturing Processes, UC Davis January-March 2018

- Utilized machine tools and G code on Esprit to manufacture a gyroscope that spins for 4.5 minutes.

InHealth, Human Performance Lab, UC Davis May 2018-Present

- Placed top finalists at UC Davis's annual create-a-thon.

LEADERSHIP

Founder—Momentum Speaker Series @ Davis, Davis College of Engineering May 2018-Present

- Pitched and created Davis's Engineering 1st student speaker series promoting peer career mentorship.
- Achieved turn-out of over 60+ attendees during event launch.

Engineering Peer Advisor—Internship and Career Center, UC Davis September 2017-Present

- Review resumes and cover letters of 10+ engineering students weekly while providing feedback.

Industry Outreach Rep.—Theta Tau, Professional Co-Ed Engineering Fraternity 2016-Present

Additional Interests: Basketball, Weightlifting, Reading, Shoes, UI Design