

# Benjamin Chia

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## EDUCATION

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University of California, Davis  
*Bachelor of Science in **Mechanical Engineering***  
Minor in ***Electrical Engineering***  
GPA: 3.30/4.00

Expected Graduation: June 2020

- Engineering Coursework: Manufacturing Processes, Mechanics of Materials, Dynamics, Drafting & Perspective, Properties of Materials

## SKILLS

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- **CAD & Fabrication Design:** SolidWorks, AutoCAD, SketchUp, ESPRIT, G Code, Machine Tools, 3-D Printing, Strain/Stress Material Testing, GD&T
- **Programming:** LabVIEW, Visual Basic for Applications (VBA), Excel, MATLAB, C, Arduino
- **Web & Design:** HTML, CSS, JavaScript, Bootstrap Framework, Adobe Photoshop, Illustrator
- Fluent in Mandarin (Bi-lingual)

## EXPERIENCE

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

- Leading the characterization and testing of next-generation, iterative Mantra heart valves.
- Analyze valve failure modes in dynamic failure testing: nitinol fractography, leaflet kinematics, and braid deformation/deflection.
- Building fatigue test machine to test the structural reliability of metal components.

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

- Analyzed research and assessed the efficacy of standing desks on metabolic/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

- Designed a comprehensive data transfer tool using VBA to automate data validation and entry 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](https://bjchia.github.io))

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

- Utilized end mills, drill press, lathes, and G code on Esprit CAM software to manufacture a functioning 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

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

- Pitched and created Davis's Engineering 1<sup>st</sup> student speaker series.
- Promoting peer mentorship for students to accelerate their career development and knowledge.

**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