

David Chon

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Education

University of California, Riverside, Riverside, CA

Graduation Date: **March 2016**

Bachelor of Science in Mechanical Engineering

- Coursework: Mechanics of Materials, Linear System and Control, Feedback Control, Vibrations, Kinematic and Dynamic Analysis of Mechanisms, Transport Phenomena, Robotic Planning and Kinematics, Mechanical Behavior of Materials, Machine Design

Experience

Stanford Center on Longevity: Design Challenge (Senior Design)

September 2015 – March 2016

UC Riverside, Bourns College of Engineering, Riverside, CA

- Designed and manufactured a spring knee device to support elderly in their daily activities
- Supervised a team of three in the approach to a solution and prototype construction
- Developed a physical prototype using the mill, lathe, bandsaw, CNC machine, 3D printer, and welding equipment

Kinematic and Dynamic Analysis of Mechanisms Final Project

April 2015 – June 2015

UC Riverside, Bourns College of Engineering, Riverside, CA

- Implemented a GUI in Matlab for kinematic simulation over entire range of motion of a four bar linkage and slider crank system
- Developed an animation of the mechanism for specified input conditions
- Analyzed the static and dynamic forces on each member, which will be displayed in the GUI

Robotics Planning and Kinematics Final Project

September 2014 – December 2014

UC Riverside, Bourns College of Engineering, Riverside, CA

- Created Matlab code that accurately plans the path of the robot and checks for collision

Feedback Control Final Project

April 2014 – June 2014

UC Riverside, Bourns College of Engineering, Riverside, CA

- Utilized Matlab to create an active car suspension and draw Bode plots, Nyquist Criterion, and Root Locus
- Designed PID control/tuning to ensure passenger comfort by minimizing the amplitude and duration of oscillations

Machine Design Project

April 2014 – June 2014

UC Riverside, Bourns College of Engineering, Riverside, CA

- Led a team of four to plan, construct, and analyze a straw bridge
- Utilized Solidworks and conducted tests to confirm the point of failure and load failure with calculated results

Accomplishments

Volunteer

March 2011 – Present

Los Angeles Regional Food Bank, Gardena, CA

- Lead a small team to distribute canned goods and groceries for families of low income
- Assist in coordinating logistics and distribution

Church Web Developer/Management

September 2010 – Present

Arise Reformed Church, Gardena, CA

- Develop and manage the church website using HTML, CSS, and Javascript

Church Sound Engineer/Worship Leader

September 2006 - Present

Arise Reformed Church, Gardena, CA

- Ensure live sound equipment is set up properly and in working condition
- Check sound quality and make adjustments when needed

Highlights

- Proficient in Mill and Lathe Techniques, Solidworks, AutoCAD, Matlab, C++, Java, Adobe Photoshop, Lightroom, Illustrator
- Highly skilled in Microsoft Word, Excel, PowerPoint, HTML5, CSS, Javascript, Stress and Strain Analysis, Sound Engineering Techniques

Affiliations

Active Member, American Society of Mechanical Engineers (ASME), UC Riverside

Sept 2013 – March 2016