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| **Felix Cortes** |
| 424-200-1375 ● felixcortes147@gmail.com ● Gardena, CA 90249 |

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| **OBJECTIVE** | | | | | |
| Entry-level position in the automotive field where I can use my CAD, vehicle dynamics, hands-on, and manufacturing experience for product development. | | | | | |
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| **EDUCATION** | | | | | |
| **California State University,** Los Angeles, California | | | | *(Graduated) 9/2012 – 5/2017* | |
| Bachelor of Science, Mechanical Engineering (GPA 3.67)  Dean’s List 3 terms; Awarded Cum Laude at graduation; Tau Beta Pi – Engineering Honor’s Society  **Relevant coursework:** | | | | | |
| *Kinematics of Mechanisms*  *Manufacturing Processes* | *Vibrational Analysis I & II*  *Controls of Mechanical Systems* | *Machine Design*  *Senior Design* | |  |
| **FE Exam Passed** – NCEES ID #16-722-29 | | | | *2/2017* | |
| Received a senior-class recognition for exceptional design and leadership. | | | | *5/2017* | |

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| **EXPERIENCE** | |
| **Society of Automotive Engineers (SAE): Formula** | *1/2015 - 12/2015* |
| Suspension Design, *volunteer*  Designed suspension components for ideal race performance.  Modeled and assembled the components onto the car’s Solidworks assembly for dynamic analysis.  Gained experience: vehicle dynamics, Solidworks, use of machinery to make designed parts, basic GD&T, designing around constrained variables, team management & communication. | |
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| **California State University, Los Angeles** | *6/2017 - 9/2017* |
| Laser 3D Printer Operator, *contract*  Trouble shoot the laser melting 3D printer for operational use.  Responsible for progress documentation and writing an instructions manual for future operators.  Customized the GCode of Repetier Host program for optimal sequence. | |
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| **California State University, Los Angeles** | *8/2016 - 5/2017* |
| Project Manager & Mechanical Designer, *senior design*  Managed the design, fabrication, assembly, team communication, and placement order processes of the project.  Used Solidworks to model and assemble entire project’s system and FEA analysis.  Used vertical mills, welding, lathes, taps, and other tooling to manufacture the project.  Ensured the project met safety standards established by the University’s Risk Management Department & ANSI Z136.1. | |
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| **Vibrational Analysis II** | *4/2017 - 5/2017* |
| Body Analysis, *class project* | |
| Derived equations of motion for a 15 degree of freedom mass-damper model.  Used Matlab to code equations to compute all the natural frequencies & mode shapes. | |
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| **Vibrational Analysis I** | *11/2016 - 12/2016* |
| Suspension Design, *class project*  Simulated a tractor suspension using Matlab to analyze the vehicle response using different damping ratios. | |

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| **SKILLS** | |
| **Manufacturing:** Vertical mills, lathes, band saws, grinders, MIG & TIG welding, GD&T, hand tools  **Programs:** SOLIDWORKS, Fortran 90, MS Word/Excel/Power Point/Visio/Project Prof., MATLAB, Simulink, Repetier Host  **Language:** Fluent in English and Spanish  **Other:** Communication, logistics, project management, leadership, public speaking | |
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| **GROUPS & ACTIVITIES** | |
| **Toastmasters International,** *Torrance, CA* | *7/2016 - Present* |
| Received the Competent Communicator Award.  Assistant District One Logistic Manager (year-long volunteer). | |
| **Fundamentals of Engineering Preparation Facilitator,***Alhambra, CA* | *4/2017* |
| Prepared a group of student engineers for the thermodynamic & heat transfer section of the FE exam. | |