Jean-Luc Chamaa

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Education

University of California, Los Angeles — *Cumulative GPA: 2.9*
Bachelor of Science in Mechanical Engineering — *Expected June 2016*

Relevant Coursework

- Mechanism Design	*- Statics & Strength of Materials*	*- Computer Science (C++)*	*- Electrical Circuits & Analysis*
- Dynamics of Rigid Bodies	*- Engineering Thermodynamics*	*- Feedback & Control*	*- Analysis of Dynamic Systems*

Work Experience

Thales Avionics – Advanced Products; Mechanical Engineering Intern — *June 2015-August 2015*

- Designed the core mechanism of an overhead retract device, resulting in a 20x increase in theoretical 'cycles to failure.'
- Implemented more efficient software and designed new hardware for two award-winning business class seats.
- Transformed traveler UI by retrofitting an innovative 3.3V wireless remote to be powered by airplane 5V.
- Researched virtual reality and holographic technologies for remote seat concept demonstrations

UCLA School of Engineering Tech Camp; Instructor & Technical Manager — *March 2014-August 2014*

- Taught and mentored 14 high-school students through a 4-week hands-on robotics engineering project.
- Designed prototypes in Solidworks, and machined stock 6061 aluminum to .005" tolerance.
- Assembled robots and debugged all radio and wired communication issues.
- Developed curriculum & daily lesson plan content, as well as administered all technical instruction.

Projects & Involvement

Thales Arduino Challenge – ArdoPylot; Lead Developer — November 2014 – December 2014

- Created a bio-reactive audio-visual and cabin climate controller for in-flight entertainment systems.
- Awarded by Thales as a Top 5 project, of 20+ projects from 4 California Universities.
- Used OpenCV, Arduino, and Python for face detection, light control, serial communication, and audio-visual adjustments.
- Successfully demonstrated project to Thales executives and engineers.

ASME BattleBots UCLA; External Vice President — *May 2014-Present*

- Successfully organized and coordinated of UCLA's first ever Mechanical Engineering-specific career fair.
- Holding full authority over group project funding, as well as industry, alumni, and department relations.
- Creating and presenting Solidworks CAD lessons to classes of 25+ incoming engineering students.

Arduino LED SuperController Project; Engineer & Designer — *June 2014- September 2014*

- Brainstormed, designed, prototyped, built, debugged, and completed an Arduino-based device for precision LED Control.
- Employed N-Channel MOSFET power transistors and Pulse Width Modulation in combination to adjust color brightness.
- Programmed Arduino to perform fft on electret microphone input, making the LEDs audio-reactive and bass sensitive.
- Shipped a custom UI, using an RGB backlit LCD screen with LiquidCrystal library for the dynamic display.
- Utilized potentiometers and a modified 5-way navigational switch to permit user input to the SuperController.

Ecochella Pedal Power Generation Project; Project Lead & Manager — *February 2014-May 2014*

- Created and led 3-man engineering team that created a human powered energy-generating bicycle.
- Led team through 3 rounds of proposals, to become 1 of 7 teams to be allocated resources of an original 25.
- Designed, built, soldered, and performed extensive debugging on the power circuit.
- Engineered and implemented belt-driven powertrain, creating a useable 100 Watts at 25 Volts.

Skills

Software		***Programming***		***Hands-on***	
Experienced:	Solidworks CAD • Git MATLAB • Visual Studio	***2000+ Lines:***	C/C++ • MATLAB • LaTeX	***Tangible:***	Soldering • Machining Mill • Lathe • Drill Press
Familiar:	Simulink • Vim	***1000+ Lines:***	Python • Arduino • HTML	***Intangible:***	Circuit & Mechanical Design
		Familiar:	Android • CSS • Bash		