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*

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 cycles to failure.
- Implemented more efficient software and designed new hardware for two award-winning business class seats.
- Transformed traveler UI/UX by retrofitting an innovative 3.3V wireless remote to run off airplane power.
- Researched virtual reality and holographic technologies for remote 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.
- Developed curriculum & daily lesson plan content and administered all technical instruction.
- Designed prototypes in Solidworks, and machined stock 6061 aluminum to .005" tolerance.
- Assembled robots and debugged all radio and wired communication issues.

Projects & Involvement

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

- Created a bio-reactive AV controller for in-flight entertainment systems.
- Used OpenCV, Arduino, and Python for face detection, light control, and AV adjustments.
- Successfully demonstrated project to Thales executives and engineers.
- Awarded by Thales as a Top 5 project.

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

- Successfully organized UCLA's inaugural 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*

- Invented an Arduino-based device for precision LED Control.
- Designed a MOSFET PWM controller for modulating LED brightness and color.
- Developed signal processing software for real-time FFT on microphone data, making LEDs audio-reactive.
- Shipped a custom UI, using an RGB backlit LCD screen with LiquidCrystal library for the display.
- Modified a 5-way switch to be used as the navigation UI.

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

- Created and managed engineering team that built an 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 100W 25V generator.

Skills

Software		*Programming*		*Manual*		*Mental*	
Solidworks	★★★★	C/C++	★★★★	Soldering	★★★★	Mechanical Design	★★★★
Git	★★★★	MATLAB	★★★★	Manual Mill	★★★★	Troubleshooting	★★★★
MATLAB	★★★★	LaTeX	★★★★	Assembly	★★★★	Industrial Design	★★★★
Bootstrap	★★★	Arduino	★★★★	Lathe	★★★	Teaching	★★★★
Visual Studio	★★★	HTML/CSS	★★★★	Drill Press	★★★	Presenting	★★★
Vim	★★★	Javascript	★★★	CNC Mill	★★	Circuit Design	★★★
Simulink	★★	Python	★★	Welding	★★	Technical Writing	★★★