

# Jean-Luc Chamaa

## Contact

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## Education

University of California, Los Angeles  
Bachelor of Science in Mechanical Engineering

Cumulative GPA: 2.9  
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

Solidworks ★★★★★  
Git ★★★★★  
MATLAB ★★★★★  
Bootstrap ★★★  
Visual Studio ★★★  
Vim ★★★  
Simulink ★★

### Programming

C/C++ ★★★★★  
LaTeX ★★★★★  
Arduino ★★★★★  
HTML/CSS ★★★★★  
Linux ★★★  
JavaScript ★★★  
Python ★★

### Manual

Soldering ★★★★★  
Manual Mill ★★★★★  
Assembly ★★★★★  
Lathe ★★★  
Drill Press ★★★  
CNC Mill ★★  
Welding ★★

### Intangible

Mechanical Design ★★★★★  
Troubleshooting ★★★★★  
Industrial Design ★★★★★  
Teaching ★★★★★  
Presenting ★★★  
Circuit Design ★★★  
Technical Writing ★★★