

# Wilson Lam

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Website: [www.wilsonlam.co.nf](http://www.wilsonlam.co.nf) (visit site for more projects)

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## EDUCATION

### University of California, Los Angeles

- **Master Degree in Mechanical Engineer**, GPA: 3.23 [Expected June 2014]
- **Bachelor of Science in Mechanical Engineer**, GPA: 3.25 [2009 – 2013]

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|---|---|
| • Combustion Engine Design                  | • Smart Grid Research                         |
| • Connecting Rod Design (+FEA)              | • Electric Vehicle Design and Implementation  |
| • Heat Transfer and Thermodynamics          | • Rapid-Prototyping and Manufacturing         |
| • Finite Element Analysis (Theory & Coding) | • Management & Assembly of Molding & Casting  |
| • Mechanical Design/Material Strength       | • Dynamic System Control (feedback & control) |
| • Formula SAE vehicle design                | • Composite Structure Design                  |
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## SKILLS

### Languages

- Proficient in: Matlab, Javascript, HTML, CSS, LabVIEW
- Familiar with: Visual C++, Java, Python, Mathematica

### Software

- Platforms: -Windows: XP, 7, Vista, 8; -Linux: Ubuntu, Puppy; -Mac; -Android
- CAD Software: Proficient in static, frequency, optimization, thermal, and motion FEA: ([Link1](#))([Link2](#))
  - Abaqus
  - AutoCAD
  - Comsol
  - Solidworks
  - Inventor
- Microsoft Office & Visio Products, Web Design, jQuery, Creative Suite (Dreamweaver, Photoshop, etc.)

### Technical Skills

- Manufacturing: Mills, lathe, water-jet abrasive cutter, EDM, and Solid Freeform Fabrication (3DP, FDM)
- Electronics: Sensors testing and installation, PID control of sensors and actuators, wire soldering, software-hardware integration, integrated circuit designs, and feedback control.
- American Society of Engineers and Architects (secretary managing group activities and meetings)

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## ENGINEERING PROJECTS

### [pocketRULER](#) (Rapid-Prototyping with FDM) [2014]

- Gather data then design and manufacture working prototype.
- Present product, redesign, and remanufacture until product is optimized through rigorous iterations.
- Primary responsibilities include design, develop, present product, and organize group presentations.

### [Project Panthra](#) (Autonomous Delivery Vehicle) [2013]

- Group design, purchase, manufacture, test, and assemble the autonomous vehicle to transverse a designed track carrying 18 lbs. to unloading area. Model in Solidworks then machine or build parts.
- Solder and wire electronic components to H-bridges, sensors, and control board.
- Test multiple sensors with PID for dynamic feedback control of wall distance in real time.

### [Project Magneton](#) (Solid Freeform Fabrication (SFF) and Manufacturing) [2011]

- Design Solidworks model of Magneton then use SFF, waterjet cutter, EDM, and mill to create the rapid-prototype model. CNC is use in the production of some parts.

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## INTERESTS/ACTIVITIES

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|--|---------------------------------|--------------------------------------|
| • Robotics   | • MESA ( <a href="#">Link</a> ) | • Skill USA ( <a href="#">Link</a> ) |
| • UCLA FSAE ( <a href="#">Link 1</a> )( <a href="#">Link 2</a> ) | • ASEA                          | • Science Olympiad                   |