Wilson Lam

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Website: www.wilsonlam.co.nf (visit site for more projects)

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]

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

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)

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 though 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.

INTERESTS/ACTIVITIES

- Robotics
- UCLA FSAE (Link 1)(Link 2)
- MESA (Link)
- ASEA
- Skill USA (Link)
- Science Olympiad