Wilson Lam (ABOUT ME)

Address Available Upon Request • (626) 264-3213 • wilsonlam@ucla.edu
Website: www.wilsonlam.co.nf

EDUCATION

University of California Los Angeles

- **Bachelor of Science in Mechanical Engineer**, GPA: 3.25, 2009 – 2013
- **Master Degree in Mechanical Engineer**, 2013-2014 (complete spring 2014)

- Combustion Engine Design
- Connecting Rod Design (+FEA)
- Gearbox Design
- Heat Transfer and Thermodynamics
- Finite Element Analysis (Theory & Coding)
- Mechanical Design/Material Strength
- Molding, Sand Casting, Extrusion Molding, etc
- Formula SAE vehicle design
- Smart Grid Research
- Electric Vehicle Design and Implementation
- Rapid-Prototyping and Manufacturing
- Factory Management & Assembly
- Engineering ethics
- Dynamic System Control (feedback & control)
- Composite Structure Design
- (For More Click Here)

COMPUTER SKILLS

Low & High Level Languages

- Proficient in: Matlab (Interface, cmd prompt, FEA coding, etc.), Javascript, HTML, CSS, LabVIEW (User Interface, Statediagram)
- Familiar with: Visual C++, (basic) Java, (basic) Python, Mathematica

Software

- Platforms: -Windows: XP, 7, Vista, 8; -Linux: Ubuntu, Puppy; -Mac; -Android
- CAD Software: Knowledgeable in static, frequency, optimization, thermal, and motion FEA: (Examples)
  - Abaqus
  - AutoCAD
  - Comsol
  - Solidworks
  - Inventor
- Microsoft Word, Excel, PowerPoint, Web Design, jQuery, and Creative Suite (Dreamweaver, Photoshop, etc.)

EXPERIENCE

pocketRULER (Rapid-prototyping with FDM) [2014]
TEAM Stratasystems (Project)

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

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 CAD 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.

Linear Actuating Table Design (Matlab Coding) [2012]

- Optimization of 6 bar linkage in Matlab, coupler curve, velocity, acceleration, torque, and power analysis of motor. Finalize design in CAD and perform second motion analysis.

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

- Design CAD 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.

HAND ON EXPERIENCE

- 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)

INTERESTS/ACTIVITIES

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

VOLUNTEER EXPERIENCE

- Experience as a T.A. (high school)
- Child Care, 2004 – 2005 encouraging kindergarteners and being a peer facilitator for 2nd graders
- Peer facilitator for 3rd - 6th graders
- Mathematics tutoring for high school and college undergraduates

REFERENCE

- Available Upon Request