Max Davis +1 415.294.1740
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Principal at *Steel & Silicon, LLC* (Present)

- I've started a company offering mechanical, electrical, and software engineering for hire.
- Good engineering involves data-driven big-picture planning, inventive design, first-principles analysis, awareness of practical constraints, hands-on fabrication, and getting it done.
- See also the "about the company" blurb at http://blog.steelandsilicon.com/about/

Principal Engineer / Solar Specialist at *GreenMountain Engineering* (Fall 2004 – Spring 2010)

- 50+ projects for clients in the solar industry (conventional, thin-film, and concentrating) and in other cleantech, semiconductor, and biotech fields, often as lead engineer or project manager.
- Custom automation (from one-off lab metrology to manufacturing tools replicated overseas).
- Design of various components of solar modules, products and CPV receivers (material selection, process design, component sourcing, vendor management, prototyping, testing, troubleshooting).
- Design, development, and modeling of solar trackers, controllers, and algorithms.
- Led development of GreenMountain's main product (an outdoor tracker characterization tool):
    - Owned nearly every aspect from initial idea through development and worldwide sales.
    - Did concept design, customer interviews, IP, electrical/mechanical design and prototyping, testing, productization, beta trials, assembly logistics (in-house and through contract manufacturers), packaging, documentation, marketing, sales, support.
    - The product was developed from concept to Beta in ~6 months and launched in another 3.
- Multiphysics modeling (thermal, mechanical, and electrical FEA), SPICE, I-V characterization.
- In later years, also did business development, sales, and marketing (corporate strategy, client presentations, project proposals and negotiation, portfolio design, cold calls, and closing deals).

Staff Engineer at *Kovio* (Fall 2002 – Fall 2004)

Multidisciplinary engineer at a 20-person Silicon Valley startup developing printed semiconductors. Areas of work included design of custom printing tools and fixtures, mask and device design, electrical test automation and analysis, experimental design and management (designing devices and process flows, coordinating processing and characterization across multiple fabs and vendors), manufacturing SPC (databases, visualization software), capital equipment selection, and even a little wet-lab chemistry.

R&D Engineer at *E Ink Corporation* (Spring 2000-Spring 2002)

Multidisciplinary engineer/scientist at an electronic paper display startup, focusing on 'skunkworks' rapid development projects. Developed a range of new technologies from concept to prototype, including full-color electronic paper and electrostatic and passively-addressed displays. Other areas of work included development of new optical metrology tools, internal white papers, custom analog/digital circuit design, product prototyping, precision fixture design, color science, and multiphysics modeling.

Lecturer at *MIT* (Summer 1999-Summer 2000)

During a one-year Lecturer appointment at MIT, developed and taught several new courses including engineering-based versions of Physics I and II, and seminars in robotics, motor control, and game theory.

PUBLICATIONS & INDUSTRY INVOLVEMENT:

Five issued US Patents (7236292, 6704133, 6982178, 7312916, 7443571) and several provisional.
Invited presentations, papers, or posters at most of the major US and international solar conferences.
Substantially involved in writing solar standards through ANSI / IEC TC82/WG7.
Also see some more informal writing at http://blog.steelandsilicon.com/

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) - Cambridge, MA
B.S. June '99 in self-designed major: Mechanical & Electrical Engineering (2A). GPA 4.9/5.0