JOHN BAUMAN

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Objective

- A software engineering position where I can add value to a company and its products.

Experience

- **Google**—Mountain View, CA   *Software Engineer 3, February 2011-*
  - Developed a software compositing system to bring some benefits of the new hardware path to machines without GPUs
  - Implemented a framework for measuring latency from input to changes appearing on-screen
  - Implemented several WebGL features in Chrome Browser
  - Increased performance of ANGLE OpenGL ES 2 to Direct3D 9 translator

- **VMware**—Palo Alto, CA   *MTS 2, May-Aug., 2008 & June 2009-Feb. 2011*
  - Implemented virtualized Direct3D Shader Model 3 support by converting shaders to OpenGL GLSL to run on the host OS
  - Developed WDDM driver to run on Windows Vista & 7
  - Used profilers and logging tools to optimize performance of graphics stack
  - Implemented hardware video colorspace conversion and pixel-adaptive deinterlacing.

- **Memory lab at CMU**—Pittsburgh, PA *Undergrad. Research Programmer, Sept. 2007-May 2008*
  - Using Python and LISP for cognitive modelling, creating experiments, and analyzing experimental data to try to determine how our memory works.

- **NVIDIA Corporation**—Santa Clara, CA   *Intern, May-Aug., 2007*
  - Worked on fixing bugs in Windows Vista display driver on notebooks
  - Helped develop new features for future graphics cards

Education

- **Carnegie Mellon University**—Pittsburgh, PA
  Masters in Electrical and Computer Engineering (ECE), Dual Degree in Computer Science and ECE, minor in Physics, 2005-2009
  - GPA: 3.94/4.00 (overall)
  - Dean's List all eight semesters, University Honors, member of Phi Beta Kappa, Tau Beta Pi, and Eta Kappa Nu honor societies
  - Classes: Operating System Design and Implementation, Networks, Graphics, Foundations of Programming Languages, Embedded System Design, Optimizing Compilers

Skills

- **Operating Systems**
  - Linux (Red Hat, Ubuntu, and Debian)
  - Have programmed a Linux device driver
  - Windows 98/2000/XP/Vista/7, Win32 development and driver development

- **Computer Languages/Technologies:**
  - Proficient in C, C++, Python, HTML, XML, UNIX Shells, Ladder Logic, Linux programming

– Familiar with Windows programming, Java, OpenGL, DirectX, DXVA, Video Decode Acceleration Framework, Perl, Haskell, LaTeX, Javascript, SNUSP, XSLT, SML, and ARM or x86 assembly
– Have designed integrated circuits using Cadence Virtuoso

Interests

- Computers, rocketry, tennis, music (piano and trumpet; Bach, Chopin, Liszt, and Mahler)